

Mathematics Class 5

Term 1



Pupil's Book

**Ministry of Education, Youth & Sports Development
Bikenibeu, Tarawa, Republic of Kiribati**

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Please do not write in this book.
Write the answers in your exercise book.

UNIT 1: ADDITION

Lesson 1: Counting From One to a Thousand

Group Work

Group 1: Write in twos from 2 to 100.

Group 2: Write in threes from 500 to 1000.

Group 3: Re-arrange in order of size.

400	950	600	1000	250
100	550	700	800	150
350	50	950	300	450
200	900	650	850	500

Individual Application

Fill in the blank spaces.

15, 18, 21, __, 27, 30, __, __, 39, 42, __, __, __,

54, __, __, __, __, 69, 72, 75, __, __, __, __.

Additional Exercise

Draw a circle round the even numbers and a square round the odd numbers.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

NOTE: Remember to bring these things for tomorrow's lesson.

- (a) 5 coconut midribs (*te noko*)
- (b) 1 soft drink can (30 cm. in height)
- (c) 40 round fruit (*te bero*)

Lesson 2: Place Value (Units or Ones to a Thousand)

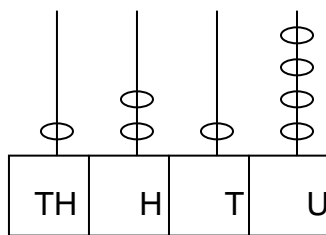
Group Work

Work together to make an abacus. Put a number on the abacus and show it to your teacher.

Individual Application

Show these numbers on an abacus.

For example: → 1 214

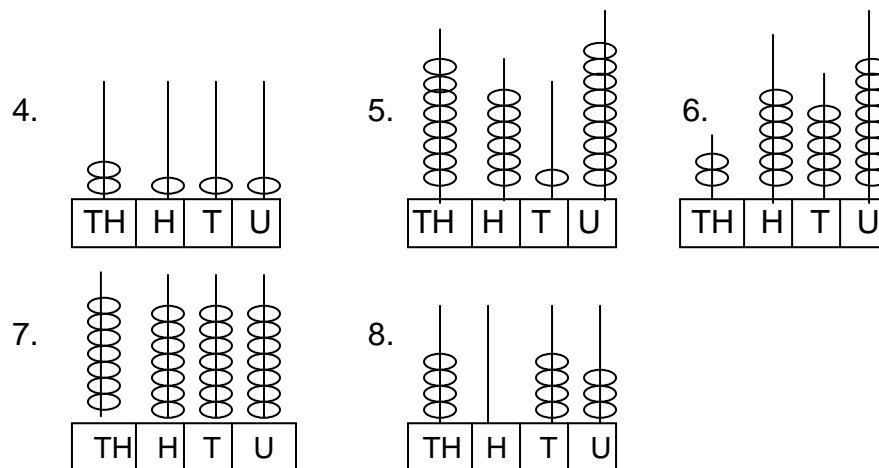


- | | |
|----------|----------|
| 1. 1 000 | 5. 3 427 |
| 2. 942 | 6. 5 374 |
| 3. 6 666 | 7. 4 850 |
| 4. 2 491 | 8. 7 203 |

Additional Exercise

Write the figure shown on the abacus.

- | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|----|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|----|---|---|---|
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| 4 | 3 | 2 | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| TH | H | T | U | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| TH | H | T | U | | | | | | | | | | | | | | | | | | | | | | | |



Lesson 3: Addition Using Expanded Notation

Group Work

In your group, solve the following addition sums, using expanded notation.

1. $\begin{array}{r} 18 \\ + 21 \\ \hline \end{array}$
2. $\begin{array}{r} 142 \\ + 555 \\ \hline \end{array}$
3. $\begin{array}{r} 240 \\ + 86 \\ \hline \end{array}$
4. $\begin{array}{r} 65 \\ + 314 \\ \hline \end{array}$
5. $\begin{array}{r} 547 \\ + 102 \\ \hline \end{array}$
6. $\begin{array}{r} 147 \\ + 254 \\ \hline \end{array}$
7. $\begin{array}{r} 213 \\ + 146 \\ \hline \end{array}$
8. $\begin{array}{r} 305 \\ + 111 \\ \hline \end{array}$
9. $\begin{array}{r} 849 \\ + 200 \\ \hline \end{array}$
10. $\begin{array}{r} 625 \\ + 143 \\ \hline \end{array}$

Individual Application

Fill in the empty boxes.

1. $\begin{array}{r} 432 \\ + \square \\ \hline \end{array} \rightarrow \begin{array}{r} \square \\ + 30 + \square \\ \hline \end{array}$

$\begin{array}{r} 400 + 60 + 5 \\ 800 + 90 + 7 = \square \end{array}$

2. $\begin{array}{r} 64 \\ + 127 \\ \hline \end{array} \rightarrow \begin{array}{r} \square + \square \\ \square + \square + \square \\ \hline \square + \square + \square = 191 \end{array}$

$$\begin{array}{r}
 3. \quad \begin{array}{|c|} \hline \square \\ \hline \end{array} \begin{array}{|c|} \hline \square \\ \hline \end{array} \begin{array}{|c|} \hline \square \\ \hline \end{array} \longrightarrow 300 + 40 + 7 \\
 + \begin{array}{|c|} \hline \square \\ \hline \end{array} \begin{array}{|c|} \hline \square \\ \hline \end{array} \begin{array}{|c|} \hline \square \\ \hline \end{array} \longrightarrow \begin{array}{r} 400 + 30 + 2 \\ \hline \square + \square + \square \end{array} = 779
 \end{array}$$

$$\begin{array}{r}
 4. \quad \begin{array}{|c|} \hline \square \\ \hline \end{array} 65 \longrightarrow 300 + \begin{array}{|c|} \hline \square \\ \hline \end{array} + \begin{array}{|c|} \hline \square \\ \hline \end{array} \\
 + 236 \longrightarrow \begin{array}{r} 200 + 30 + 6 \\ \hline 600 + 00 + 1 \end{array} = 601
 \end{array}$$

$$\begin{array}{r}
 5. \quad 789 \longrightarrow \begin{array}{|c|} \hline \square \\ \hline \end{array} + \begin{array}{|c|} \hline \square \\ \hline \end{array} + \begin{array}{|c|} \hline \square \\ \hline \end{array} \\
 + \begin{array}{|c|} \hline \square \\ \hline \end{array} \begin{array}{|c|} \hline \square \\ \hline \end{array} \begin{array}{|c|} \hline \square \\ \hline \end{array} \longrightarrow \begin{array}{r} 100 + 20 + 1 \\ \hline 900 + 10 + 0 \end{array} = 910
 \end{array}$$

Additional Exercise

Solve the problems using expanded notation.

1. Jimmy received 55 cents from his mother and 50 cents from his father. How many cents did he receive altogether?
2. At Taaken Bairiki there are 152 children in Class 4 and 143 in Class 5. How many children are there altogether?
3. Find the sum of 246 and 153.
4. The distance from Tarawa to Nonouti is 399 km. and from Nonouti to Tamana is 278 km. How many kilometres is the distance from Tarawa to Tamana?

Lesson 4: Adding Using the Column Approach

Group Work

Do the exercises together, using the column approach.

- | | |
|-----------------------|-----------------------|
| 1. $115 + 43 + 92 =$ | 4. $101 + 205 + 12 =$ |
| 2. $111 + 63 + 215 =$ | 5. $54 + 48 + 100 =$ |
| 3. $83 + 147 + 10 =$ | 6. $19 + 19 + 199 =$ |

Individual Application

Work out the sums of the following, remembering to use the column approach.

- | | |
|---------------------|-----------------------|
| 1. $64 + 3 + 145 =$ | 5. $192 + 123 + 10 =$ |
|---------------------|-----------------------|

2. $91 + 24 + 133 =$

3. $743 + 12 + 43 =$

4. $76 + 23 + 109 =$

6. $5 + 124 + 52 =$

7. $121 + 11 + 192 =$

8. $14 + 162 + 15 =$

Additional Exercise

Find the answer using the column approach.

1. $187 + 24 + 34 =$

2. $23 + 243 + 121 =$

3. $124 + 144 + 116 =$

4. $345 + 12 + 114 =$

5. $110 + 10 + 101 =$

6. $24 + 42 + 244 =$

7. $321 + 123 + 23 =$

8. $100 + 300 + 11 =$

9. $532 + 22 + 54 =$

10. $37 + 386 + 123 =$

Lesson 5: Assessment

Group Work

Use your group abacus or make a new one.

Display 3 042 on the abacus. Show it to the teacher.

Individual Application

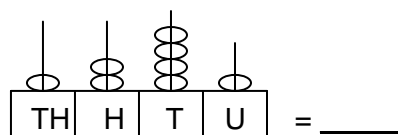
Circle the correct answer.

1. Complete the pattern below by choosing the correct answer, a), b), c) or d).

5, 10, 15, __, 25, __, 35

a) 16, 26 b) 10, 20 c) 20, 30 d) 20, 40.

2. Is the value shown on the abacus a), b), c) or d) ?



a) 1 231 b) 1 241 c) 1 421 d) 1 412

3. Find the missing numbers.

$$\begin{array}{rcl}
 423 & \rightarrow & 400 + 20 + 3 \\
 + 124 & \rightarrow & \boxed{} + 20 + \boxed{} \\
 \hline
 & & 500 + 40 + 7 = 547
 \end{array}$$

- a)

100	1
-----	---

 b)

1	4
---	---

 c)

4	1
---	---

 d)

100	4
-----	---

4. $43 + 142 + 9 = 194$

H	T	U
	4	3
1	4	2
		9
1	9	4

The value of 1 is hundred.
 The value of 9 is _____.
 The value of 4 is ones/units.

- a) tens b) ones/units c) hundreds d) thousands.

UNIT TWO: SUBTRACTION

Lesson 1: Subtraction Using the Column Approach

Group Work

Discuss the problem and calculate the answer together using the column approach.

1. $431 - 223 =$

4. $754 - 331 =$

2. $863 - 662 =$

5. $520 - 310 =$

3. $948 - 492 =$

6. $398 - 156 =$

Individual Application

Calculate the difference using the column approach.

1. $655 - 421 =$

5. $386 - 149 =$

2. $964 - 621 =$

6. $720 - 610 =$

3. $786 - 100 =$

7. $645 - 312 =$

4. $656 - 343 =$

8. $135 - 114 =$

Additional Exercise

Work out the difference using the column approach.

1. $103 - 36 =$

4. $625 - 341 =$

2. $532 - 186 =$

5. $882 - 568 =$

3. $150 - 89 =$

6. $777 - 497 =$

Lesson 2: Subtraction Using Expanded Notation

Group Work

Work together to solve the problems, using expanded notation. Record the answers in your exercise books.

1.
$$\begin{array}{r} 567 \\ - 345 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 2\,315 \\ - 112 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 6\,421 \\ - 3\,434 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 621 \\ - 142 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 349 \\ - 158 \\ \hline \end{array}$$

Individual Application

Find the answer using expanded notation.

$$\begin{array}{r} 1. \quad 964 \\ - 621 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 835 \\ - 416 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 2774 \\ - 636 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 1555 \\ - 216 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 3649 \\ - 2421 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 2662 \\ - 1143 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 426 \\ - 311 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 725 \\ - 333 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 828 \\ - 717 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 942 \\ - 739 \\ \hline \end{array}$$

Additional Exercise

Fill in the empty boxes.

$$\begin{array}{r} 1. \quad 1982 \rightarrow 1000 + \boxed{} + 80 + \boxed{} \\ - 1743 \rightarrow 1000 + 700 + \boxed{} + 3 \\ \hline 0 + 200 + 30 + 9 = 239 \end{array}$$

$$\begin{array}{r} 2. \quad 779 \rightarrow 700 + \boxed{} + 9 \\ - 465 \rightarrow \boxed{} + 60 + \boxed{} \\ \hline 300 + 10 + 4 = 314 \end{array}$$

$$\begin{array}{r} 3. \quad \boxed{} \boxed{} 2 \rightarrow 800 + 10 + \boxed{} \\ - 694 \rightarrow 600 + 90 + 4 \\ \hline 100 + 10 + 8 = 118 \end{array}$$

$$\begin{array}{r} 4. \quad 8 \boxed{3} 6 \rightarrow \boxed{} + 30 + 6 \\ - \boxed{5} 42 \rightarrow 500 + \boxed{} + 2 \\ \hline 200 + 90 + 4 = 294 \end{array}$$

Lesson 3: Problems Involving Subtraction

Group Work

Solve the problems together, using the problem solving approach.

1. There are 865 students at Sea Bee Primary. 349 are boys. How many are girls?
2. There are 1 026 people living on Nikunau and 841 on Arorae. How many more people are there on Nikunau than Arorae?
3. I have a piece of string 248 m long. I cut 124 m off. How long is the piece of string I have left?

Individual Application

Solve these using a problem solving approach.

1. In a school there are 856 children. 392 of them are girls. How many are boys?
2. There are 328 passengers on the aeroplane. 219 passengers got off. How many stayed on the aeroplane?
3. There are 9 421 apples inside a container. 598 are bad. How many apples are good?
4. Tom had 456 marbles. He gave 149 to his friend Tiiman. How many marbles Tom had?

Additional Exercise

Use a problem solving approach to work out the answers.

1. Aratibin put 739 coconuts in his cart. On his way home he gave 312 coconuts to his uncle Peter. How many coconuts were left in the cart?
2. The distance from the High Court to the wharf is 387 metres. The distance from PUB to the wharf is 218 metres PUB is between the High Court and the wharf. How far is it from the High Court to PUB?

Lesson 4: Problems Involving Subtraction

Group Work

Solve these problems together, using the three approaches.

1. Tanioti had 785 marbles. Nabuti stole 362. How many marbles were left?
2. Mrs Naang Kauongo has \$ 345.00. She put \$ 150.00 in her bank account. How much money does she have left?
3. A water container contains 1 840 litres. If I pour out 735 litres, how much water will be left?

Individual Application

Use the method you like best to solve the problems below.

1. A train travelled with 948 soldiers. On the way 484 soldiers died. How many solders reached their destination?
2. There are 1 565 warships using the Pacific Ocean. 749 of them are men-of-war. How many are carriers?
3. A motorboat filled its tank with 600 litres of benzine. At the end of the journey the tank contained only 435 litres. How much benzine had been used?

Lesson 5: Assessment

Group Work

In your group, work out the difference using the three approaches.

Group 1: Use the column approach.

Group 2: Use the problem solving approach.

Group 3: Use expanded notation.

Problem: Rotieta went to the store to buy 10 dozen of eggs. On her way back she dropped 5 dozen. How many eggs were left?

Choose another approach to work out the problem again.

Individual Application

Solve these, using the approach you like the best.

1. The length of fence A is 492 m. The length of fence B is 150 m. How much longer is fence A?
2. Mikaere has 124 coconut trees on his land. He cuts down 21 coconut trees. How many coconut trees are left?
3. One day Aren and Maria collected 647 cans and 239 plastic bottles. How many more cans than plastic bottles are there?
4. The population of Bairiki was 2002. One year later it had decreased by 437. What was the population after the decrease?

Note: Remember to bring bring your own scissors, cardboard or thick paper for the next lesson.

UNIT 3: ANGLES

Lesson 1: Constructing Angles

Group Work

Use a protractor to construct a 10° angle. Then use your 10° angle to construct

1. an angle of 10°
2. an angle of 20°
3. an angle of 30°
4. an angle of 40°
5. an angle of 50°

Individual Application

Construct an angle using your own cardboard and a 10° angle.

- | | |
|----------------|----------------|
| 1. 90° | 4. 120° |
| 2. 100° | 5. 130° |
| 3. 110° | 6. 140° |

Additional Exercise

Make as many angles as you can from your cardboard.

Lesson 2: Using Angles to Measure A Given Angle

Group Work

Working together, construct angles of

- | | |
|---------------|---------------|
| 1. 80° | 4. 70° |
| 2. 40° | 5. 50° |
| 3. 20° | 6. 60° |

Individual Application

Using your own cardboard angle, construct as many angles as you can.

Lesson 3: Using An Angle to Measure Given Angles

Group Work

Work in your group. Using your own 20° angles, draw angles of

- | | |
|---------------|----------------|
| 1. 20° | 4. 80° |
| 2. 40° | 5. 100° |
| 3. 60° | 6. 120° |

Individual Application

Draw the following angles, using your own 20° angle.

- | | |
|----------------|----------------|
| 1. 140° | 4. 200° |
| 2. 160° | 5. 220° |
| 3. 180° | 6. 240° |

Additional Exercise

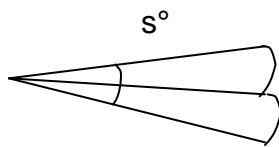
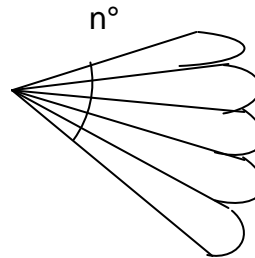
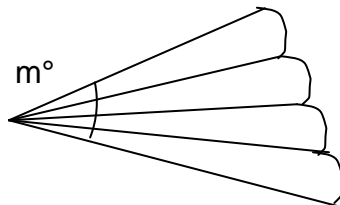
Use your two angles, that is, your 10° angle and your 20° angle, draw angles of:

- | | |
|----------------|----------------|
| 1. 30° | 4. 130° |
| 2. 90° | 5. 150° |
| 3. 110° | 6. 170° |

Lesson 4: Further Practice in Using An Angle to Measure Given Angles

Group Work

Working together, compare the angles below using the symbol $<$ or $>$.



1. m° ___ n°

2. n° ___ s°

3. s° ___ n°

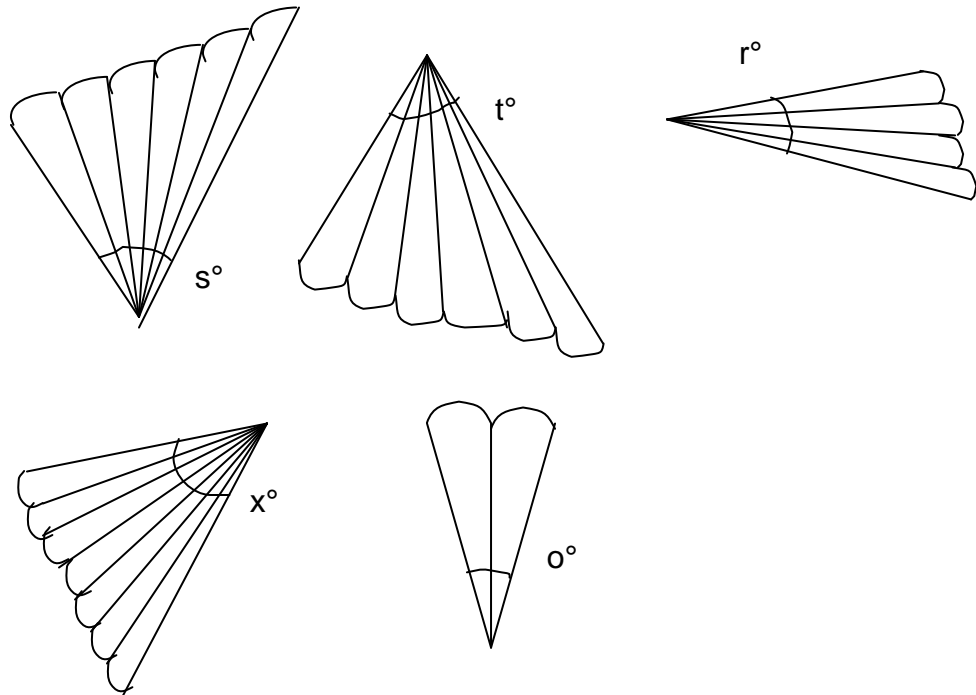
4. n° ___ m°

5. s° ___ m°

6. m° ___ s°

Individual Application

Compare these angles, using the symbols $<$, $>$ or $=$.



- | | |
|----------------------------|-----------------------------|
| 1. s° ___ r° | 7. t° ___ x° |
| 2. s° ___ t° | 8. t° ___ o° |
| 3. s° ___ x° | 9. r° ___ o° |
| 4. s° ___ o° | 10. x° ___ t° |
| 5. t° ___ s° | 11. o° ___ s° |
| 6. t° ___ r° | 12. o° ___ r° |

Additional Exercise

As homework, draw your own sets of angles and compare them using the symbol $<$ or $>$.

Lesson 5: Assessment

Group Work

Work in your group to :

1. Draw an angle of 70° .
2. Draw an angle of 180° .

3. Identify the difference between two or more angles using the symbol $>$ or $<$.

- a) 70° ____ 40°
 b) 180° ____ 360°
 c) 270° ____ 180°

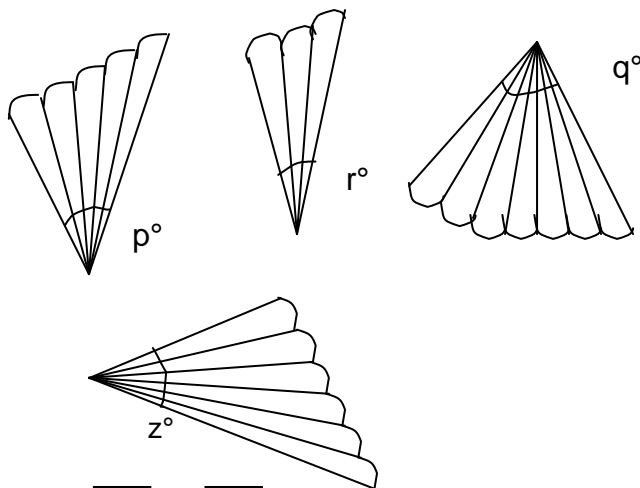
Individual Application

Fill in the spaces below.

1. True and False.

- a) $70^\circ < 90^\circ =$ ____ d) $90^\circ > 45^\circ =$ ____
 b) $180^\circ < 120^\circ =$ ____ e) $170^\circ > 165^\circ =$ ____
 c) $70^\circ < 60^\circ =$ ____ f) $10^\circ < 30^\circ =$ ____

2. Put the symbol $>$ or $<$ in the box.



- | | | | | | |
|-----|-----------|----------------------|-----------|----------------------|-----------|
| 1. | p° | <input type="text"/> | r° | <input type="text"/> | z° |
| 2. | r° | <input type="text"/> | q° | <input type="text"/> | z° |
| 3. | p° | <input type="text"/> | z° | | |
| 4. | q° | <input type="text"/> | z° | <input type="text"/> | r° |
| 5. | q° | <input type="text"/> | p° | | |
| 6. | z° | <input type="text"/> | q° | | |
| 7. | z° | <input type="text"/> | p° | <input type="text"/> | r° |
| 8. | r° | <input type="text"/> | z° | | |
| 9. | r° | <input type="text"/> | p° | | |
| 10. | z° | <input type="text"/> | p° | | |

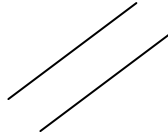
UNIT 4: LINES AND ANGLES

Lesson 1: Parallel Lines and Intersecting Lines

Group Work

Working together, put the lines under these sub-headings.

1.

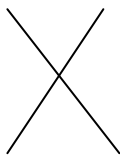


Parallel Lines	Intersecting Lines

2.



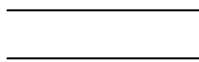
3.



4.



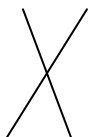
5.



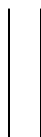
Individual Application

Circle the letters which are intersecting lines.

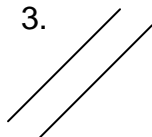
1.



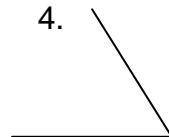
2.



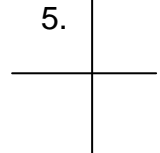
3.



4.

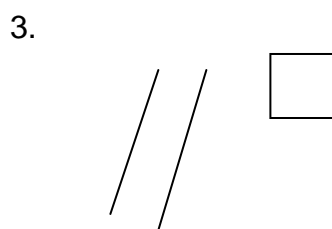
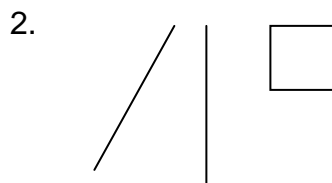
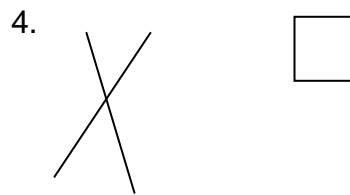
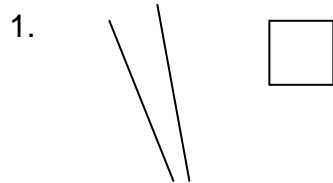


5.



Additional Exercise

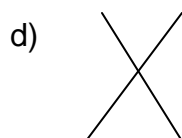
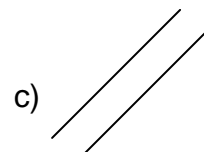
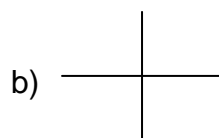
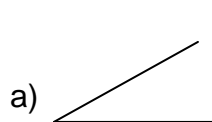
Put a \checkmark in the box if the lines are parallel and X if the lines are intersecting.



Lesson 2: Parallel Lines and Intersecting Lines (continued)
--

Individual Application

1. Draw two different pairs of two different pairs of intersecting lines.
2. Circle the intersecting lines.



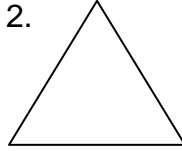
Additional Exercise

Show which lines are parallel and which are intersecting in these shapes.
Write P beside the parallel lines and X beside the intersecting lines.

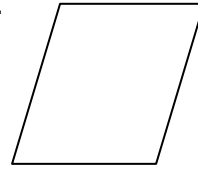
1.



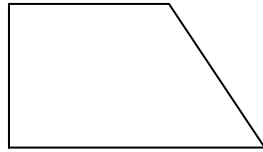
2.



3.



4.



Lesson 3: Acute Angles and Obtuse Angles

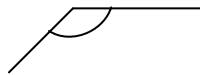
Group Work

Working together, draw any three acute and three obtuse angles.
Write the names and degrees of each angle.

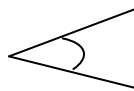
Individual Application

Name these angles.

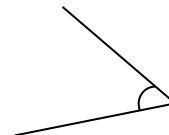
1.



2.



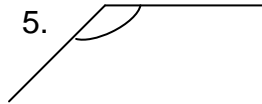
3.



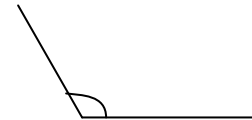
4.



5.



6.



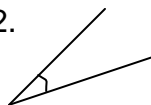
Additional Exercise

Circle the acute angles.

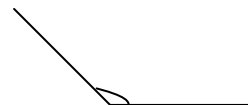
1.

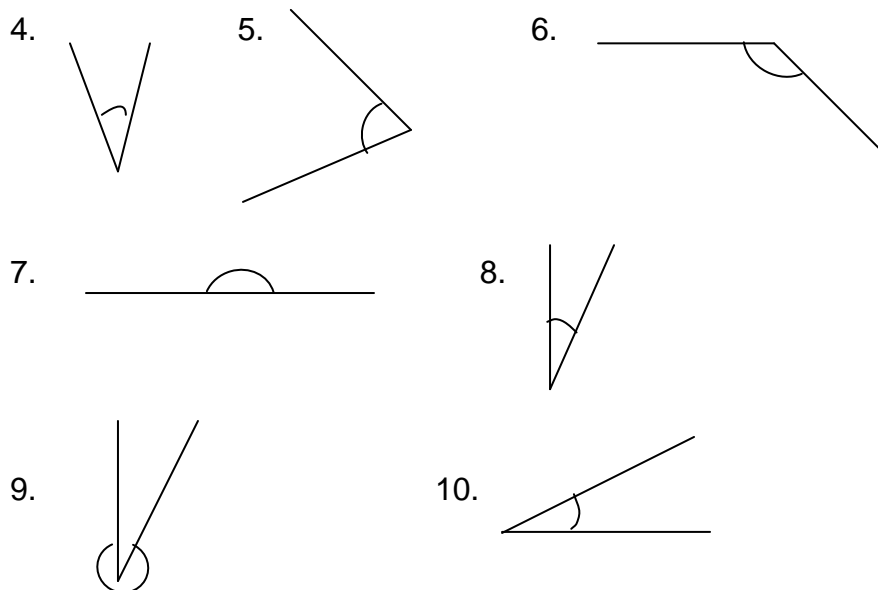


2.



3.

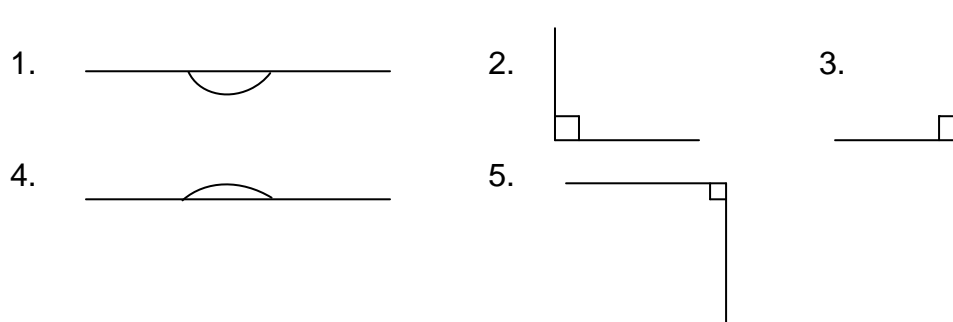




Lesson 4: Straight Angles and Right Angles

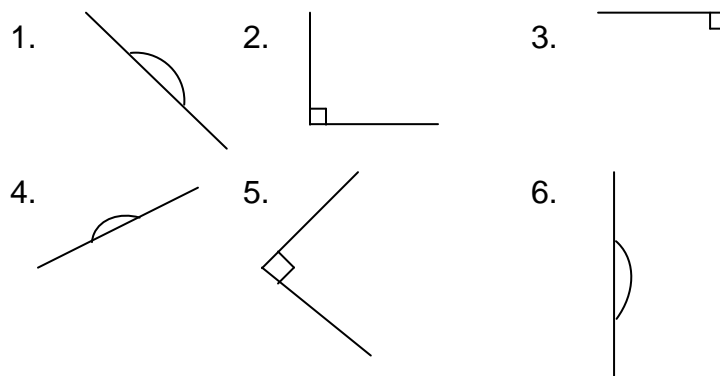
Group Work

In your group, name each of these angles. Then present your work.



Individual Application

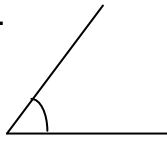
Name these angles.



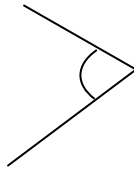
Additional Exercise

Circle the right angles.

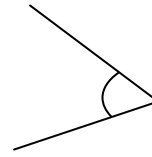
1.



2.



3.



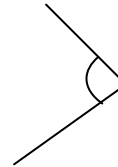
4.



5.



6.



Lesson 5: Assessment

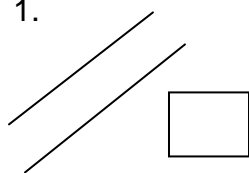
Group Work

Work together to name the angles on the chart that your teacher will give you.

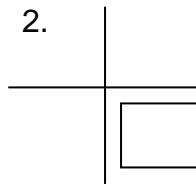
Individual Application

A. Put a ☒ tick in the box if the lines are parallel and X if the lines are intersecting.

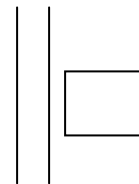
1.



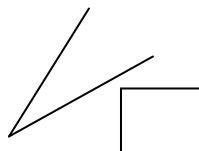
2.



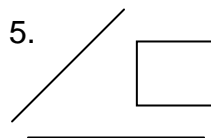
3.



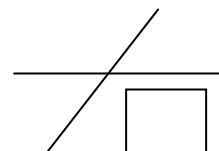
4.



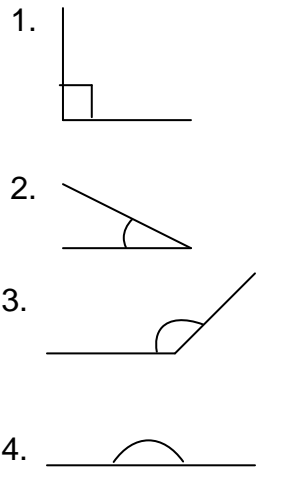
5.



6.



B. Match these angles with their correct name or degrees.



- a) A straight angle which is 180° .
- b) A right angle which is 90° .
- c) An acute angle which is greater than 0° but less than 90° .
- d) An obtuse angle which is greater than 90° but less than 180° .

C. Draw these angles.

1. an acute angle.
2. an obtuse angle.
3. a straight angle.
4. a right angle.

UNIT 5: TIME

Lesson 1: Introducing the Calendar

Individual Application

Make a calendar for your birthday month. Shade in your birthday date. Look at the example below.

MON	TUE	WED	THU	FRI	SAT	SUN
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

Bob was born on 27th June.

Additional Exercise

Answer these questions using information from group work.

1. When is World Teacher's Day?
2. When is Christmas Day?
3. When is Independence Day?
4. When is National Health Day?

Lesson 2: Converting Time

Individual Application

Answer the following.

1. How many minutes are there in an hour?
2. How many seconds are there in a minute?
3. How many minutes are there in $1\frac{1}{2}$ hours?
4. How many seconds are there in 2 minutes?
5. How many minutes are there in 2 hours?

Additional Exercise

Fill in the blanks.

1. $\frac{1}{2}$ hr. = _____

4. $1\frac{1}{2}$ mins. = _____

2. $\frac{1}{4}$ hr. = _____

5. $\frac{1}{2}$ min. = _____

3. 1 hr. = _____

6. $\frac{1}{4}$ min. = _____

Lesson 3: Past / To the Hour

Group Work

Draw or show these times on the clock face.

1. 20 mins. past 8

2. 20 mins. to 3

If your group finishes first and your work is correct, you will be given a point.

Individual Application

Show these times on a clock face.

1. 20 mins. past 1

3. 15 mins. past 1

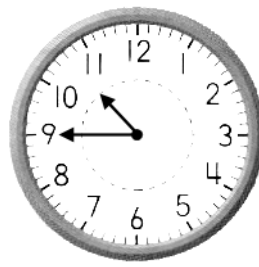
2. 5 mins. to 6

4. 20 mins. to 8

Additional Exercise

Write in the box below the time shown on the clock face.





Lesson 4: a.m. / p.m.

Group Work

Draw one a.m. event and one p.m. event.

Choose a reporter to explain the group's drawings to the class.

Individual Application

Write a.m. or p.m. in the space provided.

MV Temanraoi arrived Betio at 3 o'clock in the morning.

Koruu ate his breakfast at 9:30 in the morning.

Teangiua came back from school at 2:30 in the afternoon.

Bob wakes up at 4:15, when the sun rises.

Katiata went to the party at 10:45 very late in the evening.

Additional Exercise

Write p.m. and a.m. in the box.

The student went to school at 7:45 and came back at 1:30.

7:45

1:30

The meeting began at 8:00 and finished at 2:00 during working hours.

8:00

2:00

Tom goes to sleep at 10:00 and wakes up at 10:00.

10:00 7:00

The church service begins at 10:00 and ends at 12:05.

10:00 12:05

Lesson 5 : Assessment

Group Work

Working together, draw or show these times on the clock face.

1. 20 mins. past 8
2. 10 mins. to 7

Individual Application

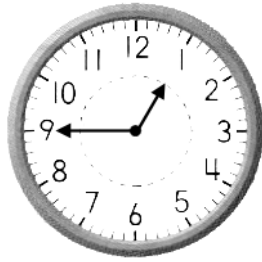
1. Answer these questions.
 - a) How many days are there in the month of April ?
 - b) State the date of World Teacher's Day.
 - c) Write the month in which you were born.
2. Fill in the blanks.

$1 \frac{1}{2}$ hours = ___ minutes.

$1 \frac{1}{4}$ hours = ___ minutes.

$1 \frac{3}{4}$ hours = ___ minutes.
3. Show these times on a clock face.
 - a) 10 minutes past 6
 - b) 10 minutes to 12

4. Write the time shown on each clock face.



5. Write p.m. or a.m. in the boxes.

- a. They turn off the light at 12 :15 after midnight before they sleep.
The next day they turn off the light at 9 :35 before they sleep.

12 :15

9 : 35

UNIT 6: FRACTIONS

Lesson 1: Types of Fractions (Proper, Improper and Mixed Fractions)

Group Work

Work in your group to put these fractions in the correct column below.

$2\frac{1}{3}$ $\frac{6}{5}$ $\frac{2}{3}$ $\frac{4}{2}$ $10\frac{1}{3}$ $\frac{3}{4}$ $\frac{4}{5}$ $\frac{5}{8}$ $9\frac{3}{4}$ $\frac{7}{5}$

Proper Fractions	Improper Fraction	Mixed Fraction

Individual Application

Write True or False

1. $1\frac{1}{3}$ is a mixed fraction.
2. $\frac{2}{5}$ is a improper fraction.
3. $\frac{3}{4}$ is a improper fraction.
4. $2\frac{2}{3}$ is a improper fraction.
5. $\frac{3}{2}$ is a improper fraction.

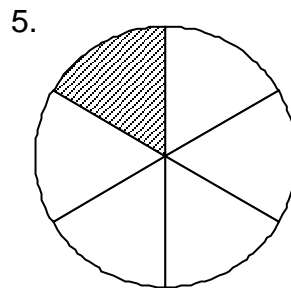
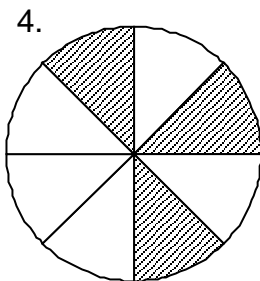
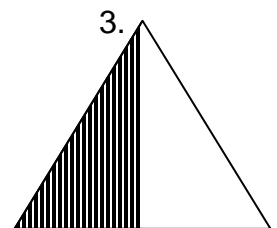
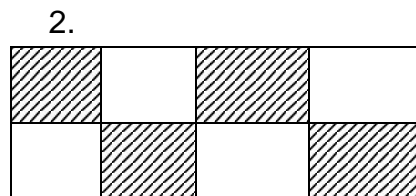
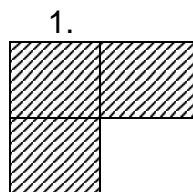
Additional Exercise

Write 2 proper fractions, 2 improper fractions and 2 mixed fractions.

Lesson 2: Parts of a Whole as Fractions

Group Work

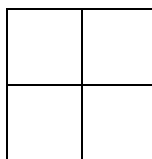
Copy the shapes and write the fractions of the shaded shapes. Make sure that you all take part in the work.



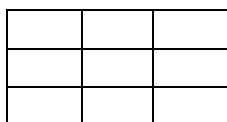
Individual Application

Shade these fractions.

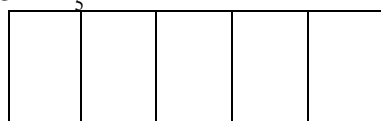
1. $\frac{1}{4} =$



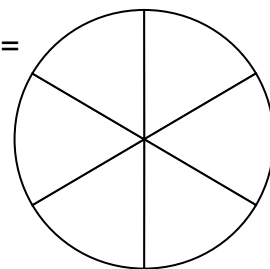
2. $\frac{2}{9} =$



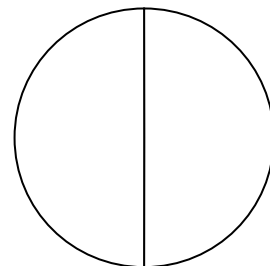
3. $\frac{3}{5} =$



4. $\frac{2}{6} =$



5. $\frac{1}{2} =$



Additional Exercise

Draw and shade these fractions.

1. $\frac{1}{2} =$ 2. $\frac{3}{4} =$ 3. $\frac{5}{6} =$ 4. $\frac{1}{3} =$
 5. $\frac{2}{5} =$ 6. $\frac{3}{8} =$

Lesson 3: Comparing Fractions Using <, > or =

Group Work

1 WHOLE									
$\frac{1}{2}$					$\frac{1}{2}$				
$\frac{1}{4}$		$\frac{1}{4}$		$\frac{1}{4}$		$\frac{1}{4}$		$\frac{1}{4}$	
$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$
$\frac{1}{5}$		$\frac{1}{5}$		$\frac{1}{5}$		$\frac{1}{5}$		$\frac{1}{5}$	
$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$

Put <, > or = in the box. Use the fractions table to help you.

1. $5\frac{1}{8}$ $3\frac{3}{8}$ 4. $\frac{4}{5}$ $\frac{3}{4}$
 2. $\frac{5}{10}$ $\frac{1}{2}$ 5. $\frac{6}{10}$ $\frac{3}{5}$
 3. $\frac{3}{5}$ $\frac{3}{8}$ 6. $\frac{2}{6}$ $\frac{1}{8}$

Individual Application

Write True or False on the line.

1. $\frac{1}{5} > \frac{2}{10}$ _____ 4. $\frac{3}{4} = \frac{5}{10}$ _____
 2. $\frac{3}{8} < \frac{1}{4}$ _____ 5. $\frac{2}{5} > \frac{4}{10}$ _____
 3. $\frac{8}{10} = \frac{4}{5}$ _____ 6. $\frac{1}{5} < \frac{4}{5}$ _____

Additional Exercise

Arrange these fractions from the smallest to the biggest.

$$\frac{4}{5}, \frac{1}{2}, \frac{3}{8}, \frac{9}{10}, \frac{3}{4}, \frac{5}{8}, \frac{1}{4}, \frac{1}{10}.$$

Lesson 4: Adding Fractions

Group Work

In groups of four or five, work out these additions :

1. $4\frac{1}{2} + 1\frac{2}{3}$

3. $5\frac{1}{2} + 3\frac{2}{4}$

5. $6\frac{3}{4} + 1\frac{1}{2}$

2. $1\frac{4}{5} + 2\frac{1}{4}$

4. $2\frac{1}{6} + 5\frac{2}{3}$

Individual Application

Circle the best answer.

1. $1\frac{2}{3} + 2\frac{1}{4}$

a) $3\frac{3}{7}$

b) $3\frac{1}{4}$

c) $3\frac{11}{12}$

d) $2\frac{11}{12}$

2. $4\frac{1}{5} + 3\frac{2}{5}$

a) $7\frac{2}{10}$

b) $3\frac{2}{10}$

c) $7\frac{3}{5}$

d) $7\frac{1}{5}$

3. $1\frac{2}{4} + \frac{1}{2}$

a) 2

b) $1\frac{1}{2}$

c) $1\frac{3}{4}$

d) $1\frac{2}{4}$

4. $10\frac{1}{3} + 2\frac{1}{2}$

a) $12\frac{5}{6}$

b) $8\frac{3}{5}$

c) $10\frac{3}{12}$

d) $12\frac{3}{6}$

5. $2\frac{2}{5} + 1\frac{1}{4}$

a) $5\frac{3}{20}$

b) $3\frac{13}{20}$

c) $3\frac{3}{9}$

d) $2\frac{2}{20}$

Additional Exercise

Fill in the missing number.

1. $2\frac{1}{4} + 4\frac{2}{3} = 6\frac{\boxed{}}{12}$

4. $1\frac{2}{3} + \frac{1}{2} = 2\frac{\boxed{}}{6}$

2. $1\frac{1}{3} + 1\frac{1}{4} = \boxed{}\frac{7}{12}$

5. $3\frac{1}{5} + 3\frac{3}{4} = \boxed{}\frac{19}{20}$

3. $2\frac{4}{5} + 3\frac{1}{2} = 6\frac{3}{\boxed{}}$

6. $1\frac{2}{3} + 2\frac{3}{5} = 4\frac{4}{\boxed{}}$

Lesson 5: Adding Fractions

Individual Application

Add these fractions.

1. $2\frac{1}{4} + 3\frac{3}{8}$

4. $2\frac{2}{5} + 1\frac{7}{10}$

2. $4\frac{3}{4} + 2\frac{5}{8}$

5. $3\frac{2}{3} + 1\frac{1}{4}$

3. $2\frac{3}{10} + 1\frac{4}{5}$

Additional Exercise

Match the addition sums with the correct answers.

1. $1\frac{1}{2} + 3\frac{3}{4}$

$13\frac{3}{10}$

2. $4\frac{1}{5} + 2\frac{3}{4}$

$5\frac{5}{6}$

3. $3\frac{1}{3} + 2\frac{1}{2}$

$7\frac{11}{12}$

4. $10\frac{4}{5} + 2\frac{1}{2}$

$6\frac{19}{20}$

5. $6\frac{2}{3} + 1\frac{1}{4}$

$5\frac{1}{4}$

Lesson 6: Subtracting Fractions

Individual Application

Subtract these fractions.

1. $3\frac{3}{4} - 2\frac{2}{5} = \square \frac{7}{20}$

4. $3\frac{3}{4} - 2\frac{1}{2} = 1 \frac{\square}{4}$

2. $6\frac{4}{5} - 4\frac{1}{2} = 2 \frac{\square}{10}$

5. $4\frac{5}{8} - 2\frac{1}{4} = \square \frac{3}{8}$

3. $3\frac{1}{2} - 1\frac{3}{8} = 2 \frac{1}{\square}$

6. $9\frac{2}{3} - 6\frac{3}{5} = 3 \frac{1}{\square}$

Lesson 7: More Practice at Subtracting Fractions

Individual Application

Write True or False.

1. $3\frac{3}{4} - 2\frac{1}{2} = 1\frac{1}{4}$ True / False

2. $3\frac{3}{8} - 1\frac{1}{2} = 1\frac{7}{8}$ True / False

3. $5\frac{2}{5} - 3\frac{2}{10} = 2\frac{2}{10}$ True / False

4. $4\frac{4}{8} - 2\frac{1}{4} = 3\frac{2}{8}$ True / False

5. $2\frac{2}{3} - 1\frac{4}{8} = 2\frac{5}{8}$ True / False

6. $3\frac{3}{4} - 2\frac{1}{8} = 1\frac{5}{8}$ True / False

Additional Exercise

Work out these subtractions.

1. $4\frac{3}{5} - 2\frac{1}{5} =$

4. $5\frac{2}{3} - 3\frac{2}{5} =$

2. $6\frac{3}{5} - 4\frac{5}{10} =$

5. $1\frac{9}{10} - 1\frac{3}{10} =$

3. $7\frac{1}{4} - 2\frac{1}{8} =$

Lesson 8: Adding and Subtracting Fractions

Group Work

Work out these addition and subtraction sums.

1. $3\frac{1}{2} + 2\frac{3}{4} =$

3. $1\frac{4}{5} + 1\frac{2}{3} =$

3. $4\frac{2}{5} - 2\frac{3}{8} =$

4. $3\frac{1}{4} + 2\frac{1}{5} =$

Individual Application

Put + or – in the box.

1. $5\frac{3}{4} \square 2\frac{1}{2} = 8\frac{1}{4}$

4. $10\frac{2}{3} \square 5\frac{3}{5} = 5\frac{1}{15}$

2. $4\frac{2}{5} \square 2\frac{1}{3} = 2\frac{1}{15}$

5. $9\frac{1}{2} \square 4\frac{2}{5} = 5\frac{1}{10}$

3. $6\frac{1}{3} \square 2\frac{1}{4} = 8\frac{7}{12}$

6. $2\frac{4}{5} \square 1\frac{1}{2} = 4\frac{3}{10}$

Additional Exercise

Fill in the boxes.

1. $\frac{1}{4} + \frac{2}{5} =$

2. $4\frac{1}{5} + 2\frac{2}{5} =$

3. $6\frac{3}{4} - 4\frac{7}{10} =$

4. $2\frac{2}{3} - 1\frac{1}{4} =$

5. $5\frac{1}{4} - 2\frac{1}{2} =$

Lesson 9: Adding and Subtracting Fractions

Individual Application

Work out the sums and differences.

1. $1\frac{2}{3} + 1\frac{1}{2} =$

4. $5\frac{4}{5} - 2\frac{1}{3} =$

2. $3\frac{5}{8} + 2\frac{2}{3} =$

5. $2\frac{1}{3} + 6\frac{2}{5} =$

3. $4\frac{1}{5} - 3\frac{1}{8} =$

Additional Exercise

Put the correct sign + or – in the box.

1. $\frac{1}{4}$ $\frac{2}{5} = \frac{13}{20}$

4. $6\frac{2}{5}$ $2\frac{1}{3} = 8\frac{11}{15}$

2. $\frac{4}{6}$ $\frac{3}{6} = \frac{1}{6}$

5. $4\frac{1}{2}$ $3\frac{2}{3} = 8\frac{1}{6}$

3. $1\frac{2}{3}$ $\frac{3}{5} = 1\frac{1}{15}$

Lesson 10: Assessment

Group Work

Work in your group to list down these fractions under their correct sub-headings.

$3\frac{1}{2}$, $\frac{4}{3}$, $\frac{1}{2}$, $\frac{2}{5}$, $\frac{6}{4}$, $2\frac{1}{2}$, $4\frac{1}{5}$, $\frac{4}{3}$, $\frac{3}{4}$, $\frac{2}{3}$, $4\frac{4}{5}$, $\frac{9}{5}$

Proper Fractions	Improper Fractions	Mixed Fractions

Individual Application

Write True or False.

1. $\frac{1}{4} < \frac{1}{8}$ True / False

2. $\frac{3}{4} < \frac{3}{8}$ True / False

3. $\frac{2}{5} = \frac{4}{10}$ True / False

4. $\frac{1}{5} > \frac{2}{3}$ True / False

5. $\frac{1}{2} < \frac{1}{4}$ True / False

6. Arrange these fractions from the smallest to the biggest.

$\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{6}{10}$, $\frac{4}{5}$, $\frac{5}{8}$

7. Do these additions and subtractions.

a) $2\frac{2}{3} + 6\frac{1}{5} =$

c) $1\frac{1}{2} + 3\frac{3}{4} =$

b) $9\frac{4}{5} - 3\frac{1}{4} =$

d) $4\frac{2}{3} + 5\frac{1}{3} =$

UNIT 7: LENGTH

Lesson 1: Centimetre, Metre and Millimetre Conversion

Group Work

Work in your group to draw lines of the following lengths.

- 1 mm.
- 1 cm.
- 1 m.

Individual Application

Answer these questions.

- How many mm. are there in 1 metre?
- How many cm. are there in 1 metre?
- How many mm. are there in 10 cm.?
- How many cm. are there in 2 m.?
- How many mm. are there in $\frac{1}{2}$ cm.?

Additional Exercise

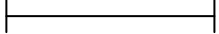
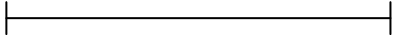
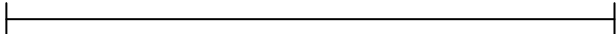
Fill in the blanks.

- 1 m. = ____ mm.
- 1 m. = ____ cm.
- 10 cm. = ____ mm .
- 10 m. = ____ cm.

Lesson 2: Converting Millimetres into Centimetres and Metres

Group Work

In the same group as yesterday, using mm. and cm. ruler and a metre ruler, measure the length of these lines.

	= ____ mm.
	= ____ cm.
	= ____ m.

Individual Application

Write the following.

1. 30 mm. as cm.
2. 30 mm. as m.
3. 50 cm. as m.
4. 100 mm. as cm.
5. 160 cm. as m.

Additional Exercise

Answer these questions.

1. How many cm. must be added to 48 cm. to make 1 m.?
2. How many mm. must be added to 500 mm. to make 1 m?
3. How many mm. must be added to 5 mm. to make 2 cm.?

Lesson 3: Estimating and Measuring Length Using cm. and mm.

Group Work

Work in your group to complete the table below.
Choose one of your group to report to the class.

Objects	Estimation	Measurement	Difference
Pen Exercise Book Chalk			

Individual Application

Estimate and measure the following. Record your results in a table.

Objects	Estimation		Measurement		Difference	
	mm.	cm.	mm.	cm.	mm.	cm.
Height of a coffee bottle Width of a duster Width of the teacher's table						

Show the difference at the end.

Additional Exercise

Complete this table.

Object	Estimation		Measurement		Different	
	mm.	cm.	mm.	cm.	mm.	cm.
1. Pen	80 mm.	_____	100 mm.	_____	_____	_____
2. Ex. book	120 mm.	_____	200 mm.	_____	_____	_____
3. Cupboard	450 mm.	_____	600 mm.	_____	_____	_____
4. Table	800 mm.	_____	1 600 mm.	_____	_____	_____

Lesson 4: Estimating and Measuring Length in Metres

Group Work

Work together to estimate then measure the lengths of objects.
Record the results in the table.

Objects	Estimation	Measurement	Difference
Door Cupboard Window			

Individual Application

1. Estimate and measure in metres the length of:

- a) a desk
- b) a shelf

Calculate the difference between the two measurements.

Additional Exercise

Convert the lengths of a desk and a shelf into centimetres.

Lesson 5: Assessment

Group Work

In your group, complete the table below. Estimate the lengths in cms.
And then measure them. Calculate the difference.

Object	Estimation	Measurement	Difference
1. Pen 2. Book			

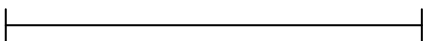
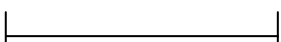
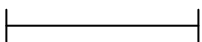
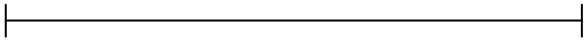
3. Blackboard			
4. Table			

Individual Application

A. Answer these questions.

1. How many cm. are there in $\frac{1}{2}$ m.?
2. How many cm. are there in 4 m.?
3. How many mm. are there in 10 cm.?
4. How many m. are there in 25 cm.?
5. How many cm. must be added to 121 cm. to make 2 m.?
6. How many mm. must be added to 11 mm. to make 2 cm.?

B. Measure the lengths of lines in cm.

1.  = ____ cm.
2.  = ____ cm.
3.  = ____ cm.
4.  = ____ cm.

C. Convert the following. Show your workings out.

1. 3 metres to cm.
2. 40 metres to cm.
3. 150 mm to cm.
4. 270 mm to cm.

UNIT 8: MULTIPLICATION AND DIVISION OF FRACTIONS

Lesson 1: Multiplication of Fractions and Whole Numbers Using a Number Line

Group Work

Work together to work out the answers using a number line on a chart.

1. $\frac{1}{4} \times 8 =$ 2. $\frac{3}{10} \times 4 =$

Then present and display your work.

Individual Application

Solve these using a number line.

1. $5 \times \frac{1}{10} =$ 2. $6 \times \frac{1}{3} =$

Additional Exercise

Use a number line to solve these equations.

1. $8 \times \frac{2}{3} =$ 4. $6 \times \frac{1}{6} =$
2. $4 \times \frac{3}{5} =$ 5. $\frac{2}{4} \times 5 =$
3. $7 \times \frac{1}{2} =$

Lesson 2: More Practice on Multiplication of Fractions and Whole Numbers Using a Number Line

Group Work

Work together to complete these multiplication equations using a number line.

1. $\frac{4}{5} \times 3 =$
2. $\frac{2}{3} \times 9 =$

3. $\frac{1}{8} \times 9 =$

Individual Application

Use a number line to find the products.

1. $\frac{1}{2} \times 10 =$

4. $\frac{1}{3} \times 7 =$

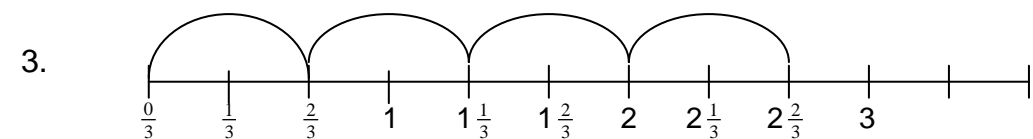
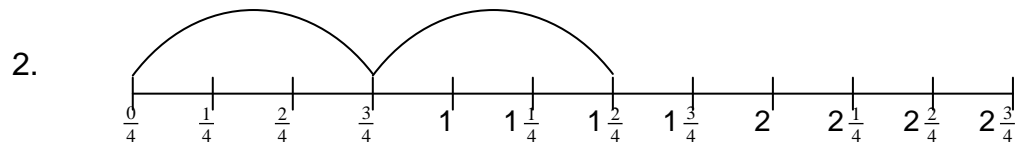
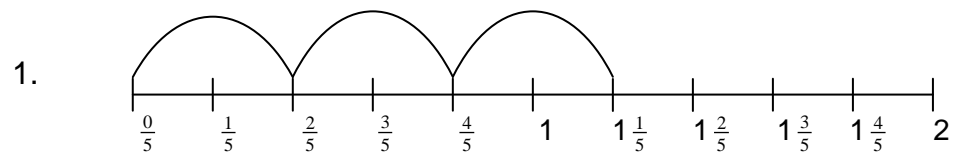
2. $\frac{2}{5} \times 6 =$

5. $\frac{4}{6} \times 5 =$

3. $\frac{3}{4} \times 5 =$

Additional Exercise

Write the equations shown on these number lines.



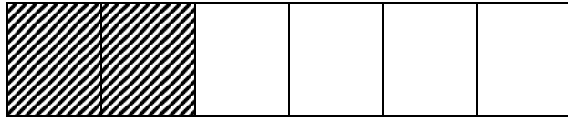
Lesson 3: Multiplication of Whole Numbers and Fractions Using a Diagram

Group Work

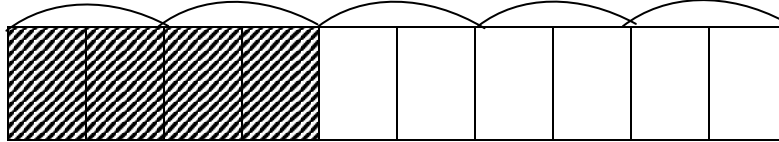
Work together to find the products by using diagrams.

1. $\frac{1}{3} \times 6 =$

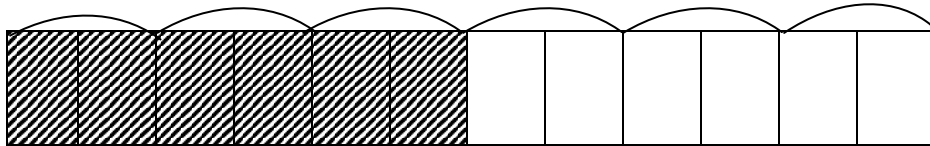




2. $\frac{2}{5} \times 10 =$



3. $\frac{1}{2} \times 12 =$

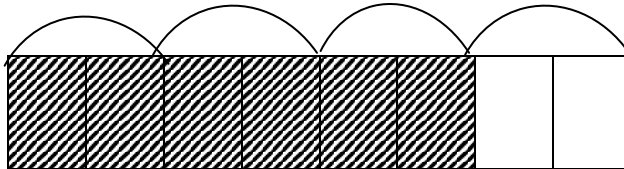


Display group work.

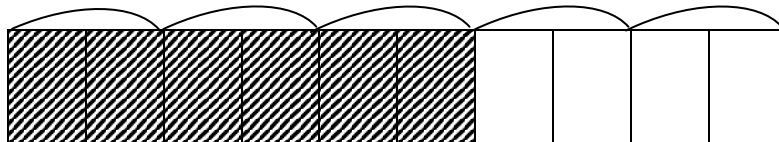
Individual Application

Use a diagram method to solve these:

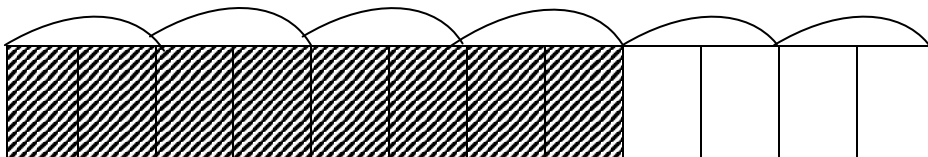
1. $\frac{3}{4} \times 8 =$



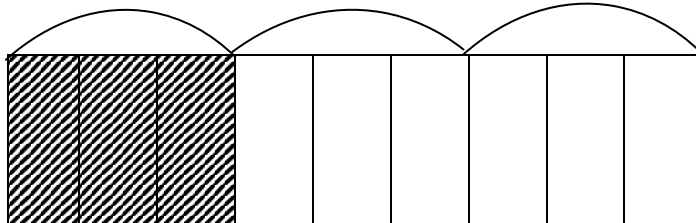
2. $\frac{3}{5} \times 10 =$



3. $\frac{4}{6} \times 12 =$



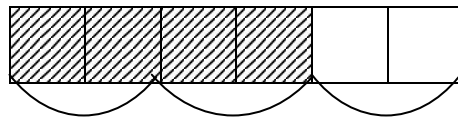
4. $\frac{1}{3} \times 9 =$



Additional Exercise

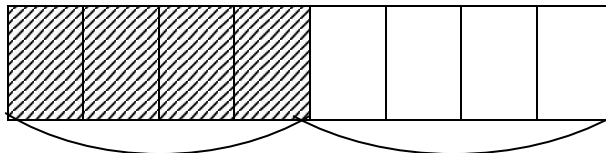
Write the equations for these diagrams.

Example:

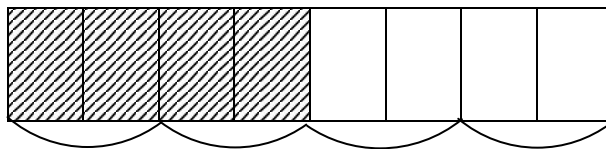


$\frac{2}{3} \times 6 = 4$

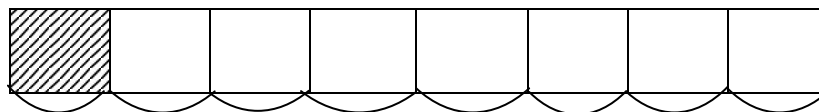
1.



2.



3.

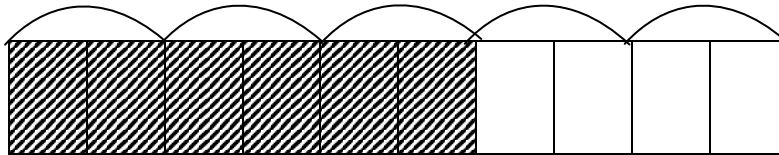


Lesson 4: Multiplication of Whole Numbers and Fractions Using Diagrams

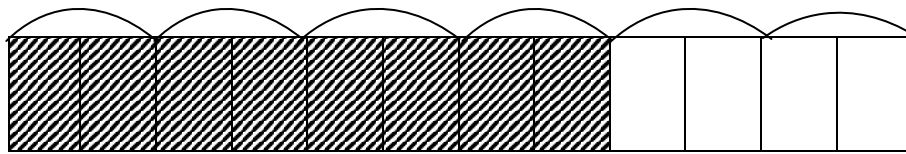
Group Work

Join the same group as yesterday. Work out the products using diagrams on a chart.

1. $\frac{3}{5} \times 10 =$



2. $\frac{4}{6} \times 12 =$

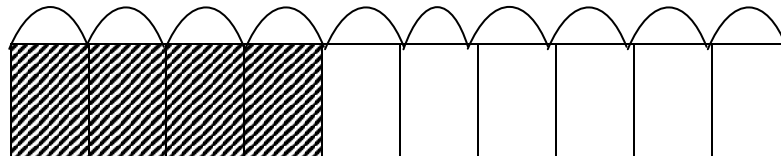


Present and display your group's work.

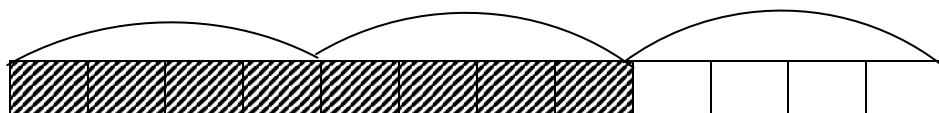
Individual Application

Solve these using a diagram.

1. $\frac{4}{10} \times 10 =$

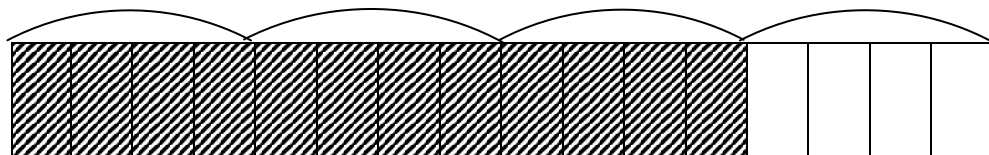


2. $\frac{2}{3} \times 12 =$





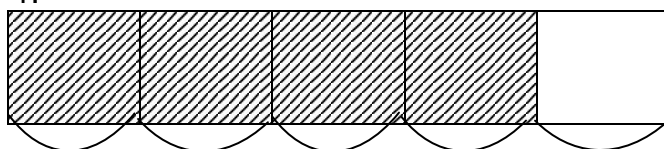
3. $\frac{3}{4} \times 16 =$



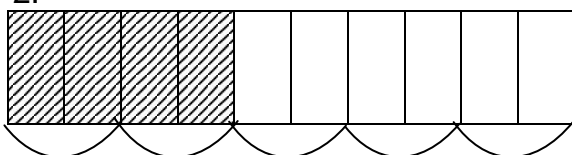
Additional Exercise

Write multiplication equations for these diagrams.

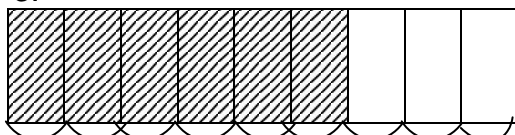
1.



2.



3.



Lesson 5: Multiplication of Whole Numbers and Fractions Using Algorithms

Group Work

Discuss in your group how to solve the problems. Then work out the answers by yourself. Write the the working out and answers in your exercise book.

1. $\frac{3}{12} \times 24 =$

3. $\frac{3}{7} \times 14 =$

2. $\frac{2}{5} \times 30 =$

Individual Application

Use algorithms to solve these:

1. $\frac{4}{5} \times 15 =$

3. $\frac{4}{10} \times 20 =$

5. $\frac{1}{2} \times 9 =$

2. $\frac{8}{9} \times 72 =$

4. $\frac{3}{4} \times 44 =$

Additional Exercise

Work out the products.

1. $\frac{5}{6} \times 63 =$

3. $\frac{6}{15} \times 15 =$

5. $\frac{4}{9} \times 18 =$

2. $\frac{4}{5} \times 8 =$

4. $\frac{5}{12} \times 36 =$

Lesson 6: Multiplying Fractions

Group Work

Discuss the problems together. Each of you writes the working out and answers in your exercise book.

1. $\frac{5}{8} \times \frac{6}{8} =$

4. $\frac{1}{4} \times \frac{4}{10} =$

2. $\frac{1}{2} \times \frac{4}{5} =$

5. $\frac{2}{5} \times \frac{3}{8} =$

3. $\frac{3}{4} \times \frac{2}{6} =$

Individual Application

Calculate the products.

1. $\frac{1}{2} \times \frac{4}{6} =$

3. $\frac{3}{8} \times \frac{2}{5} =$

5. $\frac{3}{5} \times \frac{1}{6} =$

2. $\frac{1}{6} \times \frac{1}{8} =$

4. $\frac{1}{8} \times \frac{1}{2} =$

6. $\frac{1}{4} \times \frac{6}{10} =$

Additional Exercise

Multiply these fractions.

1. $\frac{8}{9} \times \frac{2}{3} =$

4. $\frac{2}{8} \times \frac{1}{2} =$

2. $\frac{4}{5} \times \frac{3}{5} =$

5. $\frac{4}{6} \times \frac{3}{4} =$

3. $\frac{10}{12} \times \frac{1}{5} =$

Lesson 7: More Practice in Multiplying Fractions

Group Work

Discuss the problems together. Then each of you does the working out and writes the answers in your exercise book.

1. $15 \times \frac{1}{3} =$
2. $\frac{4}{7} \times 21 =$
3. $\frac{3}{5} \times \frac{5}{8} =$
4. $\frac{4}{5} \times \frac{3}{10} =$
5. $\frac{1}{6} \times 12 =$

Individual Application

Do these.

1. $\frac{3}{4} \times 16 =$
2. $\frac{3}{5} \times 20 =$
3. $\frac{4}{5} \times 25 =$
4. $\frac{2}{3} \times 12 =$
5. $\frac{3}{10} \times 80 =$
6. $\frac{1}{3} \times \frac{1}{4} =$
7. $\frac{1}{2} \times \frac{2}{3} =$
8. $\frac{3}{4} \times \frac{1}{2} =$
9. $\frac{2}{3} \times \frac{3}{4} =$
10. $\frac{4}{5} \times \frac{2}{3} =$

Additional Exercise

Solve:

1. $\frac{2}{5} \times \frac{7}{10} =$
2. $\frac{4}{10} \times \frac{1}{5} =$
3. $\frac{4}{10} \times \frac{3}{5} =$
4. $\frac{2}{3} \times \frac{3}{5} =$
5. $\frac{2}{5} \times \frac{3}{4} =$

Lesson 8: Division of Whole Numbers by Fractions

Group Work

Work with the members of your group to do these exercises.

1. $4 \div \frac{1}{3} =$
2. $3 \div \frac{4}{5} =$
3. $6 \div \frac{1}{5} =$
4. $4 \div \frac{1}{2} =$
5. $10 \div \frac{1}{4} =$

Individual Application

Calculate the quotient.

1. $6 \div \frac{3}{4} =$

2. $9 \div \frac{3}{10} =$

3. $9 \div \frac{2}{3} =$

4. $4 \div \frac{6}{10} =$

5. $12 \div \frac{3}{4} = \frac{16}{3} = 5\frac{1}{3}$

Additional Exercise

Do these.

1. $10 \div \frac{2}{5} =$

2. $15 \div \frac{1}{3} =$

3. $9 \div \frac{3}{4} =$

4. $18 \div \frac{4}{9} =$

5. $8 \div \frac{1}{4} =$

Lesson 9: Division of Fractions by Fractions

Group Work

Solve these problems together.

1. $\frac{3}{5} \div \frac{4}{10} =$

2. $\frac{7}{8} \div \frac{1}{4} =$

3. $\frac{1}{6} \div \frac{3}{24} =$

4. $\frac{2}{3} \div \frac{1}{9} =$

5. $\frac{1}{2} \div \frac{15}{20} =$

Individual Application

Work out the quotient.

1. $\frac{1}{2} \div \frac{1}{3} =$

2. $\frac{1}{4} \div \frac{1}{2} =$

3. $\frac{1}{3} \div \frac{1}{2} =$

4. $\frac{1}{2} \div \frac{1}{4} =$

5. $\frac{2}{5} \div \frac{2}{3} =$

6. $\frac{3}{4} \div \frac{1}{2} =$

7. $\frac{7}{10} \div \frac{7}{10} =$

8. $\frac{2}{3} \div \frac{4}{5} =$

9. $\frac{3}{10} \div \frac{3}{4} =$

10. $\frac{4}{5} \div \frac{7}{10} =$

Additional Exercise

Match the division statements with the answers.

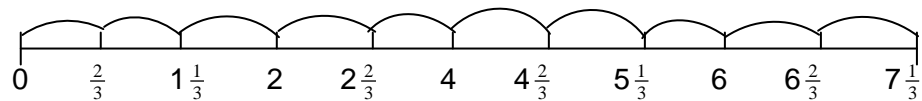
1. $\frac{3}{10} \div \frac{1}{5}$	2
2. $\frac{3}{10} \div \frac{3}{4}$	6
3. $\frac{4}{8} \div \frac{1}{4}$	$1\frac{1}{2}$
4. $\frac{6}{15} \div \frac{3}{5}$	$\frac{2}{3}$
5. $\frac{3}{4} \div \frac{3}{24}$	$\frac{2}{5}$

Lesson 10: Assessment

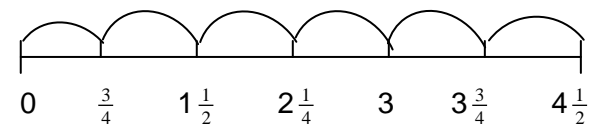
Group Work

Using a number line, work together to solve these problems on a chart.

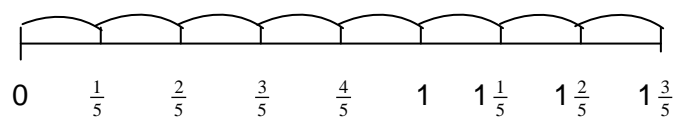
1. $\frac{2}{3} \times 8$



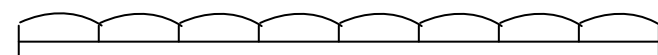
2. $\frac{3}{4} \times 4$



3. $\frac{1}{5} \times 6$

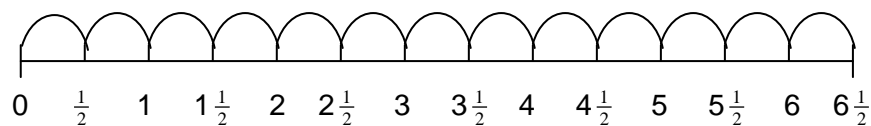


4. $\frac{3}{10} \times 5$



$$0 \quad \frac{3}{10} \quad \frac{6}{10} \quad \frac{9}{10} \quad 1\frac{2}{10} \quad 1\frac{5}{10} \quad 1\frac{8}{10} \quad 2\frac{1}{10} \quad 2\frac{4}{10}$$

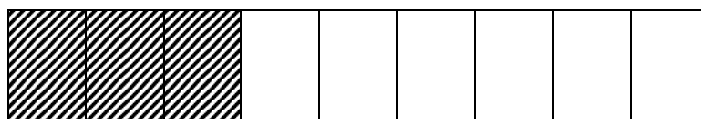
5. $\frac{1}{2} \times 9$



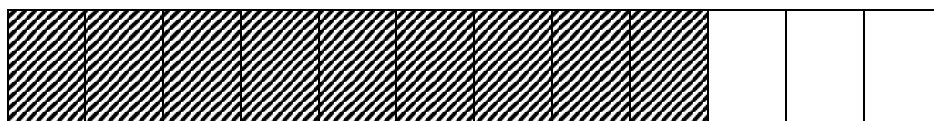
Individual Application

1. Use a diagram to find the product of :

a) $\frac{1}{3} \times 9 =$



b) $\frac{3}{4} \times 12 =$



2. Calculate.

a) $\frac{3}{5} \times 6 =$

d. $\frac{8}{12} \times \frac{4}{10} =$

b) $\frac{2}{3} \times 12 =$

e. $\frac{5}{8} \times \frac{1}{5} =$

c) $\frac{4}{10} \times \frac{1}{5} =$

3. Find the quotient.

a) $5 \div \frac{2}{3} =$

b) $12 \div \frac{6}{20} =$

c) $\frac{4}{10} \div \frac{1}{4} =$

d) $\frac{8}{10} \div \frac{2}{5} =$

e) $9 \div \frac{3}{16} =$

UNIT 9: CAPACITY AND MASS

Lesson 1: Measuring Capacity in Litres and Millilitres

Group Work

Your teacher will give your group a litre container, a container of water and some empty containers.

Measure and pour into different containers the following amounts.

- | | | |
|-------------|------------|------------|
| 1. 1 litre. | 2. 50 mls. | 3. 10 mls. |
| 4. 70 mls. | 5. 30 mls. | |

Then present your findings.

Individual Application

Using a litre measure, find out how much water these containers hold.

1. a coffee bottle (small)
2. a milk can (small)
3. a curried chicken tin.

Additional Exercise

Answer these questions.

1. If one coffee jar holds 700 mls, of water, how much will two bottles cost?
2. If one milk tin holds 1litre 50 mls. of water, work out how much water two cans hold.
3. If one curried chicken tin holds 550 mls. of water, how much do 5 tins hold?
4. Mum had 3 litres of toddy. She filled 3 bottles with the toddy. How much toddy was there in one bottle?
5. If a container holds 1 litre and 30 mls., how much does half a container hold?

Lesson 2: Converting Litres into Millilitres and Millilitres to Litres

Group Work

Work together to answer these questions.

1. How many mls. Are there in $2\frac{1}{2}$ litres?
2. How many litres are there in 2500 mls.?
3. How many litres are there in 2000 mls.?
4. How many mls. are there in half a litre?
5. How many mls. are there in 2 litres?

Individual Application

Fill in the blanks.

$$1000 \text{ mls.} = \boxed{} \text{ litres.}$$

$$2\frac{1}{2} \text{ litres} = \boxed{} \text{ mls.}$$

$$500 \text{ mls.} = \boxed{} \text{ litres.}$$

$$1500 \text{ mls} = \boxed{} \text{ litres.}$$

$$4 \text{ litres} = \boxed{} \text{ mls.}$$

Additional Exercise

Match the litres with the correct number of millilitres.

1250 mls.	$2\frac{1}{2}$ litres
750 mls.	1 litre
3000 mls.	$1\frac{1}{4}$ litres
2500 mls.	$\frac{3}{4}$ litres
1000 mls.	3 litres.

Lesson 3: Measuring Mass with Grams and Kilograms

Group Work

Work in your group to measure and record the mass of any three objects. If there is only one scale, groups can use the scale in turns. Present the findings of your group.

Individual Application

Find one object and measure its mass.
Record the mass and show it to the teacher.
Remember to line up quietly and wait for your turn to use the scales.

Additional Exercise

Answer these questions.

1. If a book weighs 55 grams, what is the mass of 2 books of the same size?
2. A coconut weighs 1.5 kg. What is the mass of 3 coconuts of the same size?
3. 1 kg. = 2.2 lbs.
2 kg. = lbs.
4. kg. = 6.6 lbs.
5. $\frac{1}{2}$ kg. = lbs.

Lesson 4: Converting Kilograms into Grams and Vice Versa

Group Work

Work in the same group as yesterday. Prove the fact that 1ml. of water weighs 1 gram. Your group must take its turn with the other groups to use the scales. Report on your findings.

Individual Application

Fill in the blanks.

Example: 10 mls. of water = 10 grams

1. 20 mls of water = grams
2. mls. of water = 15 gram.
3. 1 litre of water = kg.
4. litres of water = 2 kg.
5. 30 mls. of water = grams

Additional Exercise

Match the kilograms with the correct number of grams.

1000 g.	$\frac{1}{2}$ kg.
500 g.	$1\frac{1}{4}$ kg.
2500 g.	1 kg.
250 g.	$\frac{1}{4}$ kg.
1250 g.	$2\frac{1}{2}$ kg.

Lesson 5: Assessment

Group Work

Your teacher will give your group a container which holds a litre and a container of water.

Measure these amounts of water.

1. 1 litre
2. $1\frac{1}{4}$ litres
3. $\frac{1}{2}$ litre

Individual Application

A. Answer these questions.

1. How many grams are there in 1 kg?
2. How many grams are there in $1\frac{1}{2}$ kg?
3. How many millilitres are there in 2 litres?
4. How many millilitres are there in $\frac{1}{2}$ litre?
5. How many litres are there in 2500 mls.?

B. Fill in the blanks.

1. mls. of water = 10 grams
2. 35 mls. of water = grams
3. mls. of water = 700 grams
4. 750 mls. of water = grams
5. 800 mls. of water = grams

C. Find any one object.

Measure and record the mass.

Show the object and the mass to the teacher.

UNIT 10: MORE ON THE MULTIPLICATION AND DIVISION OF FRACTIONS

Lesson 1: Multiplication of Fractions

Individual Application

Work out the following.

1. $\frac{1}{3}$ of 27
2. $7 \times \frac{3}{10}$
3. $6 \times \frac{2}{3}$
4. $\frac{3}{8} \times 24$
5. $5 \times \frac{2}{5}$

Additional Exercise

Solve:

1. $\frac{3}{4} \times 16$
2. $\frac{2}{5} \times 45$
3. $\frac{2}{3} \times 27$
4. $\frac{3}{4} \times 24$
5. $7 \times \frac{3}{5}$
6. $5 \times \frac{7}{10}$
7. $4 \times \frac{3}{5}$
8. $8 \times \frac{4}{5}$
9. $6 \times \frac{3}{4}$
10. $9 \times \frac{4}{5}$

Lesson 2: Division of Fractions

Group Work

Work together to solve these problems.

1. $\frac{5}{8} \div \frac{1}{4}$

2. $\frac{3}{4} \div \frac{2}{3}$

3. $\frac{6}{7} \div \frac{2}{7}$

4. $\frac{2}{5} \div \frac{4}{5}$

Write your own answers in your exercise book.

Individual Application

Solve and simplify.

1. $\frac{5}{8} \div \frac{1}{4}$

2. $\frac{5}{6} \div \frac{1}{3}$

3. $\frac{1}{6} \div \frac{1}{4}$

4. $\frac{1}{5} \div \frac{3}{4}$

5. $\frac{1}{2} \div \frac{3}{5}$

6. $\frac{4}{7} \div \frac{8}{14}$

Additional Exercise

Fill in the missing number.

1. $\frac{2}{3} \div \frac{4}{9}$

$= \frac{2}{3} \times \underline{\quad}$

$= \frac{1 \times 3}{1 \times \underline{\quad}}$

$= \frac{2}{3}$

$= 1 \frac{1}{2}$

2. $\frac{15}{18} \div \frac{3}{9}$

$= \frac{15}{18} \times \underline{\quad}$

$= \frac{\underline{\quad} \times \underline{\quad}}{1 \times 1}$

$= \underline{\quad}$

$=$

3. $\frac{3}{5} \div \frac{2}{5}$

$= \frac{3}{5} \times \underline{\quad}$

$= \frac{3 \times 1}{\underline{\quad}}$

$= \frac{3}{2}$

$= 1 \frac{1}{2}$

Lesson 3: Division of Whole Numbers by Fractions

Group Work

Solve these problems together.

1. $3 \div \frac{1}{2}$

2. $14 \div \frac{1}{5}$

3. $5 \div \frac{1}{10}$

Individual Application

1. Write the reciprocals of these figures.

a) $\frac{2}{8}$

d) $\frac{1}{10}$

b) $\frac{2}{13}$

e) 4

c) 9

2. Solve:

a) $16 \div \frac{3}{4}$

b) $\frac{1}{10} \div \frac{1}{5}$

c) $12 \div \frac{1}{3}$

d) $\frac{3}{4} \div \frac{3}{8}$

e) $\frac{4}{10} \div \frac{1}{5}$

Additional Exercise

1. $25 \div \frac{3}{4}$

2. $\frac{7}{8} \div \frac{2}{3}$

3. $5 \div \frac{1}{2}$

4. $\frac{4}{5} \div \frac{2}{5}$

5. $\frac{9}{10} \div \frac{3}{5}$

Lesson 4: Problem Solving Involving Multiplication and Division of Fractions

Group Work

Follow the four steps to solve these problems together.

1. The cost of renting a house is \$120.00. Tebao's friends paid $\frac{2}{3}$ of the cost. How much did Tebao's friends pay?
2. Berebere made 2 apple cakes. She cut the cakes into quarters. How many shares did she make?

Individual Application

Follow the four steps to solve these problems.

1. Roiti made a custard-pie for her family. She had $\frac{3}{4}$ of it left. She decided to divide it into 9 equal parts to serve at morning tea. How big was one piece?
2. There are 45 trees in Bitu's land. He decide to cut down $\frac{2}{3}$. How many were cut?
3. Myrose bought a book with 90 pages. She read $\frac{4}{9}$ of the pages. How many pages did she read?

Additional Exercise

Do these.

1. Anturu worked $\frac{1}{2}$ an hour overtime every day for 5 days. How many hours overtime did he work?
2. Nowi bought 6 cans of drink for her picnic. Each can contained $\frac{1}{4}$ litre. How many litres of drink did he have?
3. Complete these.

a) $3 \times \frac{3}{4} = \frac{\quad}{4}$
 $\quad = \dots\dots =$

b) $5 \times \frac{4}{5} = \frac{\quad}{5}$
 $\quad = \dots\dots =$

c) $5 \times \frac{2}{3} = \frac{\quad}{3}$
 $\quad = \dots\dots =$

Lesson 5: Assessment

Group Work

Put children in groups of five or more.
Solve these problems together.

1. $8 \times \frac{4}{5}$
2. $7 \times \frac{1}{3}$
3. $9 \times \frac{1}{2}$
4. $\frac{3}{5} \times 60$
5. $\frac{2}{3} \times 12$

Individual Application

1. Work out the product.

- a) $\frac{3}{4} \times 45$
- b) $9 \times \frac{1}{3}$
- c) $9 \times \frac{1}{2}$
- d) $\frac{2}{3} \times 24$
- e) $\frac{3}{4} \times \frac{2}{5}$

2. Find the quotient.

- a) $8 \div \frac{1}{4}$
- b) $\frac{4}{5} \div \frac{1}{5}$
- c) $\frac{6}{10} \div 2$
- d) $10 \div \frac{3}{4}$
- e) $\frac{3}{4} \div \frac{1}{2}$

3. Teebira and Teaau planted trees. They had 45 trees and only $\frac{2}{3}$ of the trees were planted. How many trees were planted ?
4. There were 24 bananas in the cupboard. $\frac{3}{4}$ were eaten by the cat. How many were eaten?