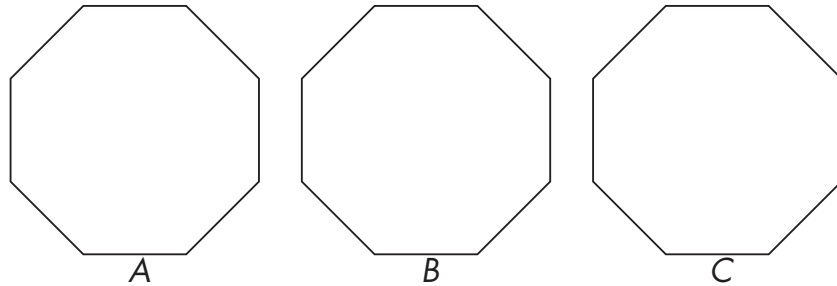


LESSON 1

FOCUS: Review and compare halves, quarters, and eighths

MATERIALS: Ruler, pencil, red and black crayons or textas

1. Divide the first **octagon** into halves, and label each part $\frac{1}{2}$. Divide the second octagon into quarters, and label each part $\frac{1}{4}$. Divide the third octagon into eighths, and label each part $\frac{1}{8}$. NOTE: Begin each division at a **vertex**.



2. Colour in red $\frac{1}{2}$ of each of the octagons. Then answer the questions.
- How many halves are in octagon A? _____
 - How many halves are in octagon B? _____
 - How many halves are in octagon C? _____
 - How many quarters are in octagon B? _____
 - How many quarters are in octagon C? _____
 - How many eighths are in octagon C? _____
3. In octagon B, shade with pencil the parts that are not coloured red. Then answer the questions.
- How many quarters are shaded with pencil? _____
 - How many quarters are coloured red? _____
 - Are more quarters coloured red or shaded with pencil? _____
 - One-half equals two-quarters. True or false? _____
 - Use numbers to write the first sentence in *d*. _____
4. In octagon C, shade with pencil the parts that are not coloured red. Then answer the questions.
- How many eighths are shaded with pencil? _____
 - How many eighths are coloured red? _____
 - Are more eighths coloured red or shaded with pencil? _____
 - One-half equals four-eighths. True or false? _____
 - Use numbers to write the first sentence in *d*. _____
5. In octagon B, outline a $\frac{1}{4}$ section with black texta. In octagon C, outline with black texta an equal-sized section. Then answer the questions.
- How many eighths are outlined? _____
 - One-quarter equals two-eighths. True or false? _____
 - Use numbers to write the first sentence in *b*. _____

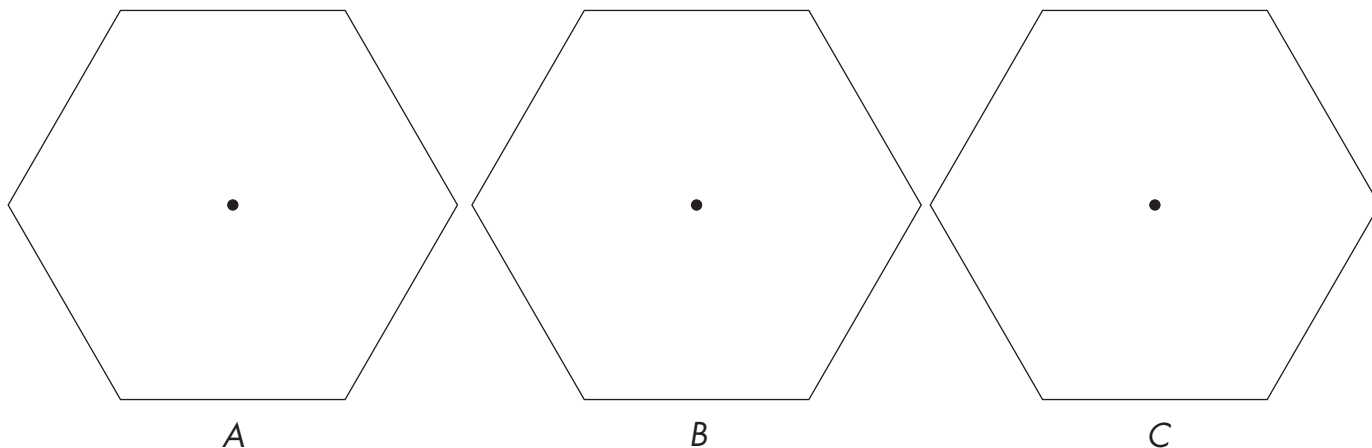
LESSON 2

FOCUS: Review and compare halves, thirds, and sixths; explore operations

MATERIALS: Ruler, blue and red crayons or textas

1. Divide the first **hexagon** into halves, and label each part $\frac{1}{2}$. Divide the second hexagon into thirds, and label each part $\frac{1}{3}$. Divide the third hexagon into sixths, and label each part $\frac{1}{6}$.

NOTE: Begin each division at a vertex. The centre point will help you divide the hexagon into thirds.



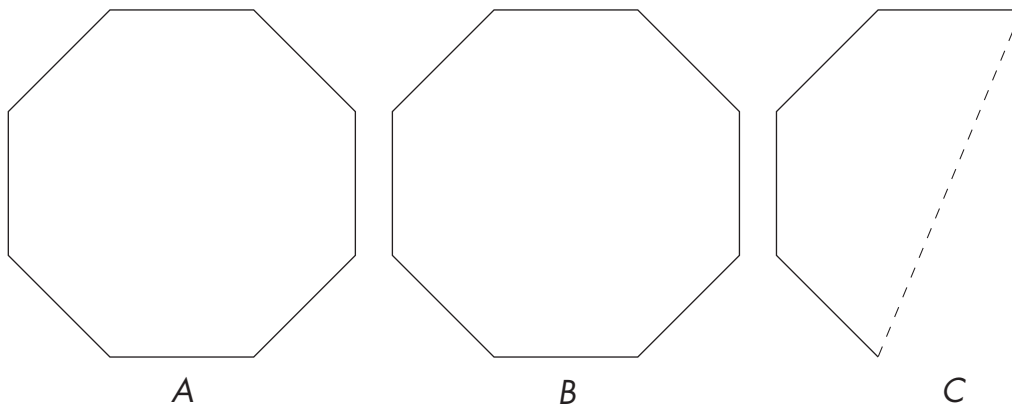
2. Colour in blue $\frac{1}{2}$ of hexagon A and $\frac{1}{2}$ of hexagon C. Then answer the questions.
 - a. How many sixths equal $\frac{1}{2}$? _____
 - b. $\frac{1}{2} = \frac{3}{6}$ True or false? _____
 - c. Which is more, $\frac{1}{2}$ or $\frac{1}{6}$? _____
 - d. Which is more, $\frac{1}{2}$ or $\frac{3}{6}$? _____
 - e. Which is more, $\frac{1}{2}$ or $\frac{4}{6}$? _____
3. Colour in red $\frac{1}{3}$ of hexagon B and $\frac{1}{3}$ of hexagon C. Then answer the questions.
 - a. Which is greater, $\frac{1}{3}$ or $\frac{1}{6}$? _____
 - b. Which is greater, $\frac{1}{3}$ or $\frac{1}{2}$? _____
 - c. Which is greater, $\frac{1}{2}$ or $\frac{1}{6}$? _____
 - d. In one-half, there are how many one-sixths? _____ $\frac{1}{2} \div \frac{1}{6} = ?$ _____
 - e. In one-third, there are how many one-sixths? _____ $\frac{1}{3} \div \frac{1}{6} = ?$ _____
 - f. One-third plus one-third equals how many thirds? _____ $\frac{1}{3} + \frac{1}{3} = ?$ _____
 - g. One-sixth plus one-sixth plus one-sixth equals how many sixths? _____ $\frac{1}{6} + \frac{1}{6} + \frac{1}{6} = ?$ _____
 - h. $\frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6} = ?$ _____
 - i. Three of the one-sixths parts equals how many sixths? _____ $3 \times \frac{1}{6} = ?$ _____
4. Use the shaded hexagons to help you find the answers.

a. $3 \times \frac{1}{6} =$ _____	c. $5 \times \frac{1}{6} =$ _____	e. $2 \times \frac{2}{6} =$ _____	g. $2 \times \frac{1}{2} =$ _____
b. $4 \times \frac{1}{6} =$ _____	d. $2 \times \frac{1}{3} =$ _____	f. $3 \times \frac{2}{6} =$ _____	h. $3 \times \frac{1}{3} =$ _____

LESSON
3

FOCUS: Review halves and quarters; practise with operations

MATERIALS: Ruler, red crayon or texta



1. Colour in red $\frac{1}{2}$ of octagon *A* and $\frac{1}{2}$ of octagon *B*. Only $\frac{1}{2}$ of octagon *C* is shown. Colour it red. Then answer the questions. Some answers may be expressed as **mixed numbers**.

a. How many halves are coloured red? _____	i. $4 \times \frac{1}{2} =$ _____
b. How many halves are not coloured? _____	j. $5 \times \frac{1}{2} =$ _____
c. How many halves are there altogether? _____	k. $\frac{5}{2} \div \frac{1}{2} =$ _____
d. $\frac{1}{2} + \frac{1}{2} =$ _____	l. $\frac{3}{2} \div \frac{1}{2} =$ _____
e. $\frac{1}{2} + \frac{1}{2} + \frac{1}{2} =$ _____	m. $1\frac{1}{2} + \frac{1}{2} =$ _____
f. $\frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} =$ _____	n. $1\frac{1}{2} + 1 =$ _____
g. $2 \times \frac{1}{2} =$ _____	o. $1\frac{1}{2} + 1\frac{1}{2} =$ _____
h. $3 \times \frac{1}{2} =$ _____	

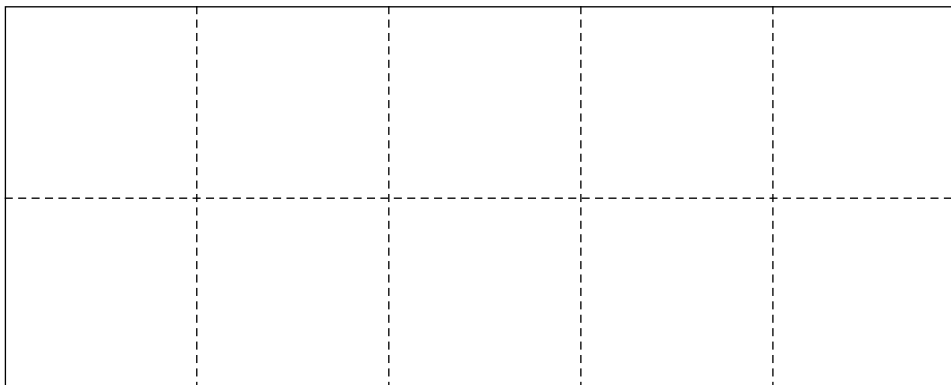
2. Draw four octagons. Divide each octagon into quarters. Then erase half of the last octagon. On a separate piece of paper, write five of your own maths problems about these octagons. Use numbers and maths symbols instead of words.

LESSON
4

FOCUS: Review halves, tenths, and decimal equivalents; practise with operations

MATERIALS: 8 blue tiles, 8 red tiles

1. Below is a picture of a **rectangle**. Use the tiles to fill in the rectangle; half the tiles should be red and the other half blue. Then answer the questions.



- How many tiles fill the rectangle? _____
 - How many tiles are red? _____ How many are blue? _____
 - Each tile is what part of the whole rectangle? _____
 - Write your answer to *c* as a **decimal fraction**. _____
 - All the red tiles or all the blue tiles are how many tenths of the whole rectangle? _____
 - Write your answer to *e* as a decimal fraction. _____
 - All the red tiles or all the blue tiles equal $\frac{1}{2}$, or $\frac{5}{10}$, of the rectangle. Write the three ways to represent all the blue tiles or all the red tiles. _____, _____, _____
 - How many tenths are in the rectangle? _____ How many halves? _____
 - Write a sentence about $\frac{2}{2}$ and $\frac{10}{10}$. First write the sentence with words. Then write it with numbers and symbols.
-
-

2. Use the tiles to find the answers.

- | | | |
|---|--|---|
| a. $\frac{1}{10} + \frac{2}{10} + \frac{4}{10} =$ _____ | d. $\frac{5}{10} + \frac{5}{10} =$ _____ | g. $\frac{5}{10} + \frac{5}{10} + \frac{5}{10} =$ _____ |
| b. $\frac{5}{10} + \frac{2}{10} =$ _____ | e. $\frac{9}{10} - \frac{4}{10} =$ _____ | h. $2 \times \frac{5}{10} =$ _____ |
| c. $\frac{1}{2} + \frac{1}{2} =$ _____ | f. $\frac{2}{2} - \frac{1}{2} =$ _____ | i. $2 \times \frac{2}{2} =$ _____ |