

Exercise 8

Basics

1 (a) $\frac{3}{4}$ ft = $\frac{3}{4} \times 12$ in = in

(b) $1\frac{3}{4}$ ft = 1 ft in

(c) $1\frac{3}{4}$ ft = 12 in + in = in

2 (a) 3 h = min

(b) $\frac{2}{3}$ h = min

(c) $3\frac{2}{3}$ h = min

3 Express 25 cm as a fraction of $1\frac{1}{2}$ m.

$$1\frac{1}{2} \text{ m} = \text{ cm}$$

$$\frac{\text{}}{\text{}} = \frac{\text{}}{\text{}}$$

25 cm is of $1\frac{1}{2}$ m.

4 Express 24 h as a fraction of $1\frac{1}{2}$ days.

$$1\frac{1}{2} \text{ days} = \text{ h}$$

$$\frac{\text{}}{\text{}} = \frac{\text{}}{\text{}}$$

24 h is of $1\frac{1}{2}$ days.

Practice

5 (a) $2\frac{7}{10}$ km = km m

(b) $3\frac{3}{4}$ lb = lb oz

6 (a) $4\frac{3}{4}$ ft = in

(b) $3\frac{3}{5}$ min = s

(c) $6\frac{2}{5}$ cm = mm

(d) $5\frac{5}{20}$ m = cm

(e) $2\frac{1}{2}$ c = fl oz

(f) $3\frac{2}{3}$ yd = ft

- 7 Carlos ran $1\frac{3}{5}$ km each day three days in a row. How far did he run altogether? Express the answer in kilometers and meters.

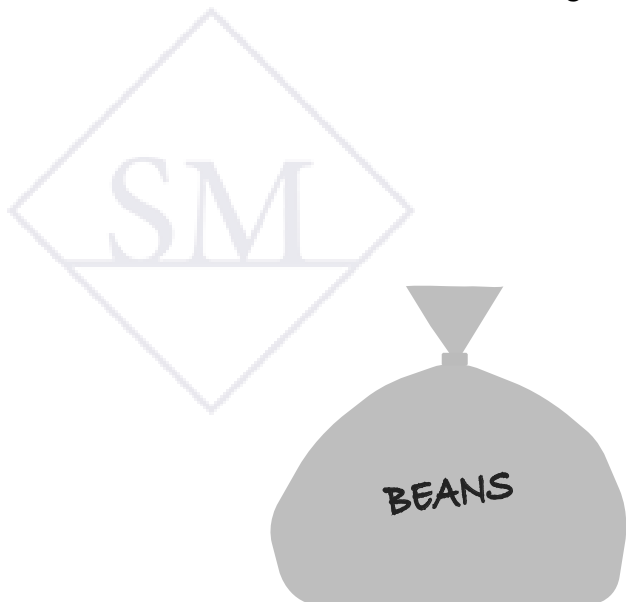
SM

- 8 Two boards laid end-to-end measure $2\frac{1}{3}$ ft. How long are 5 such boards laid end-to-end? Express the answer in feet and inches.

- 9 A bag of beans weighed $2\frac{1}{2}$ lb. 12 ounces of beans were used for soup.

(a) What fraction of the bag of beans was used?

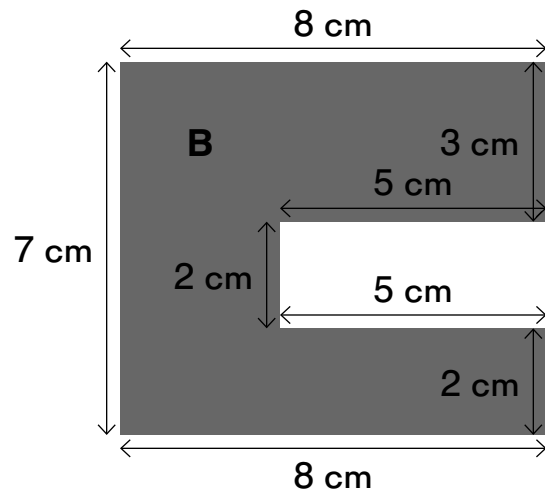
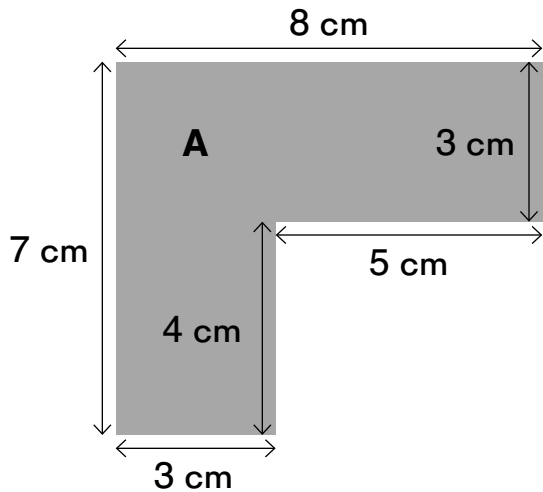
(b) Another $1\frac{1}{8}$ lb of beans was used to make chili. How many ounces does the bag of beans now weigh?



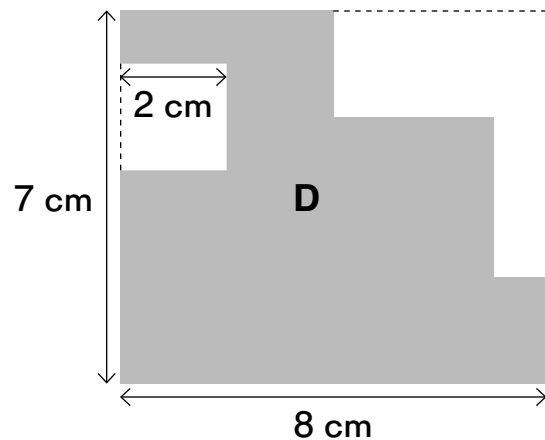
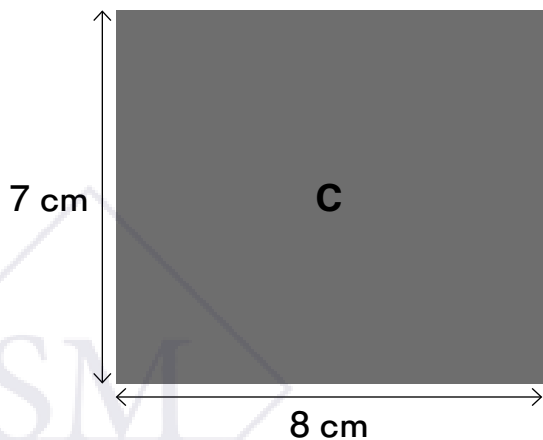
Exercise 5

Basics

- 1 (a) Find the perimeter of each figure by adding all the side lengths.

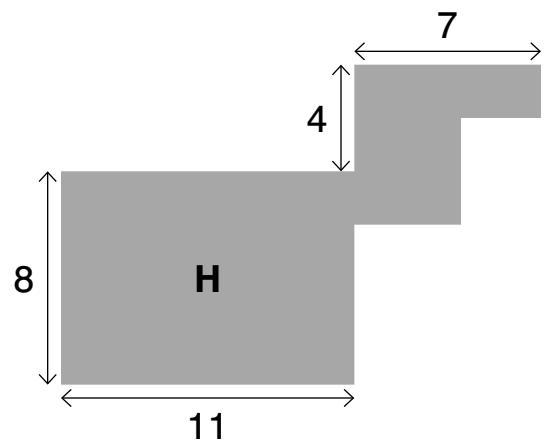
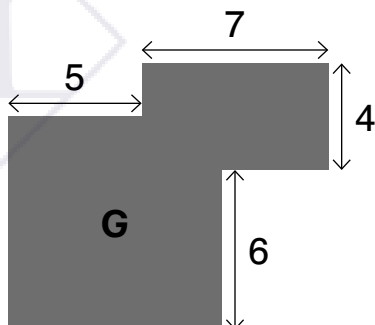
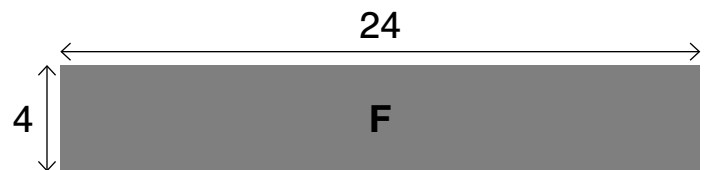
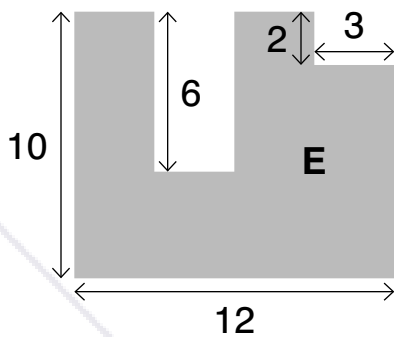
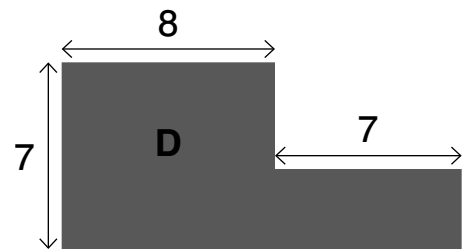
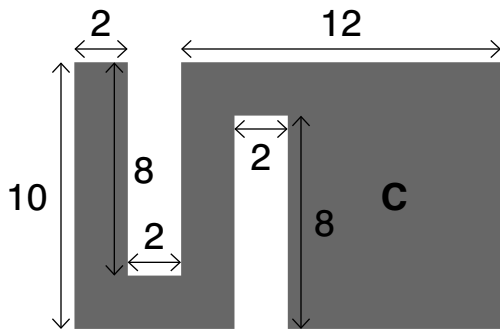
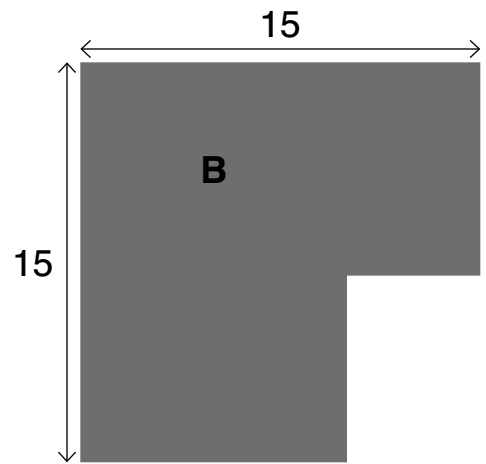
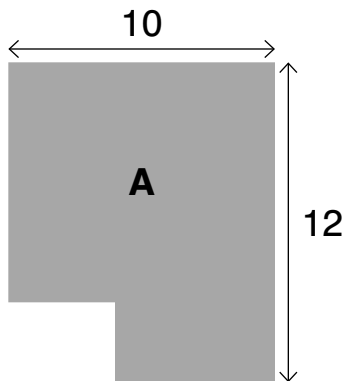


- (b) Compare the perimeters of Figures A and B to Rectangle C. What do you notice? Use this knowledge to find the perimeter of Figure D.

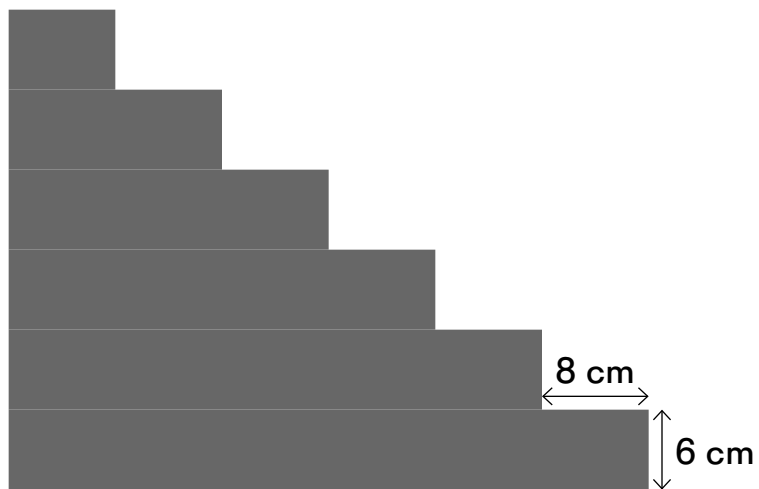


Practice

- 2 The sides of the figures are marked in units. Find all the sets of figures that have equal perimeters.

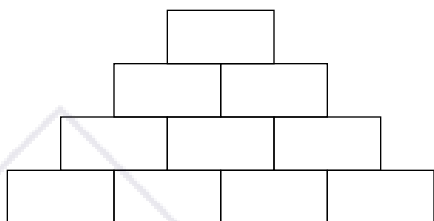


- 3 Each step of this staircase has the same length and height as the first step. What is the perimeter of the figure?



Challenge

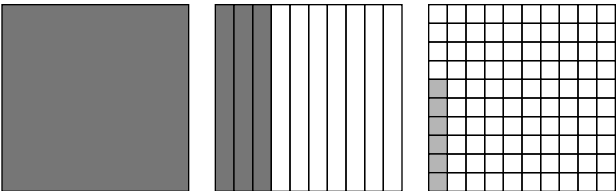
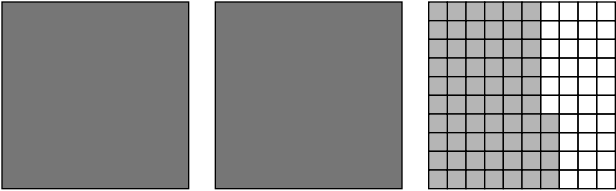
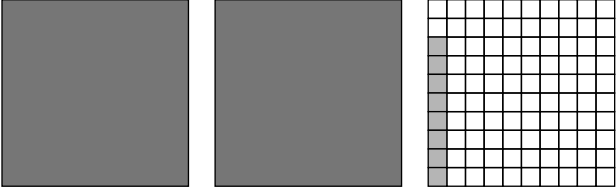
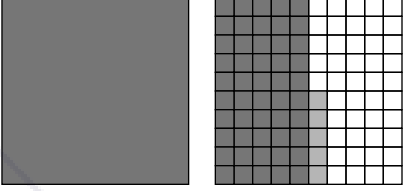
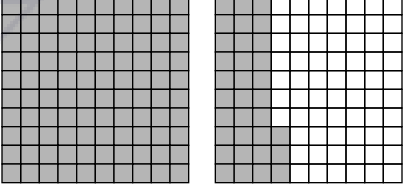
- 4 Each rectangle is 4 in long and has an area of 8 in². What is the perimeter of the figure?



Exercise 4

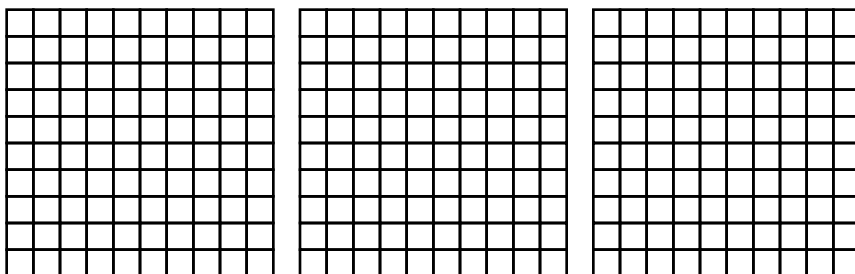
Basics

1 Complete the table.

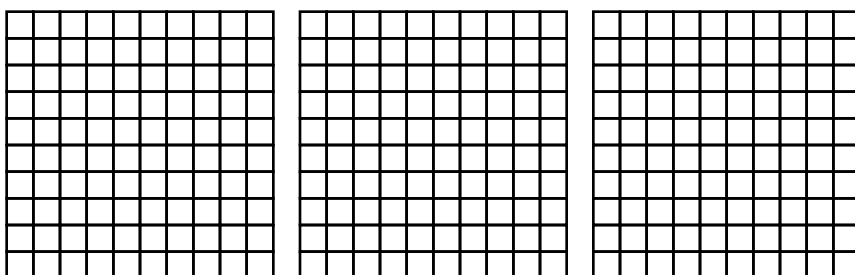
	Fraction	Decimal
	$1 + \frac{\boxed{}}{10} + \frac{\boxed{}}{100}$	1.36
	$2 + \frac{\boxed{}}{100}$	<input type="text"/>
	$2 \frac{\boxed{}}{100}$	<input type="text"/>
	$1 + \frac{\boxed{}}{10} + \frac{\boxed{}}{100}$	<input type="text"/>
	$\frac{\boxed{}}{100}$	<input type="text"/>

2 Shade the squares to show the decimal.

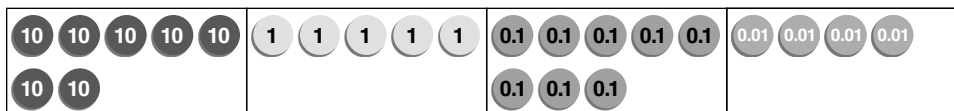
(a) 1.28



(b) 2.71



3 (a) Write the decimal represented by the place-value discs.



Tens	Ones	Tenths	Hundredths
2	5	8	4

(b) The digit _____ is in the tens place. Its value is _____.

(c) The digit _____ is in the ones place. Its value is _____.

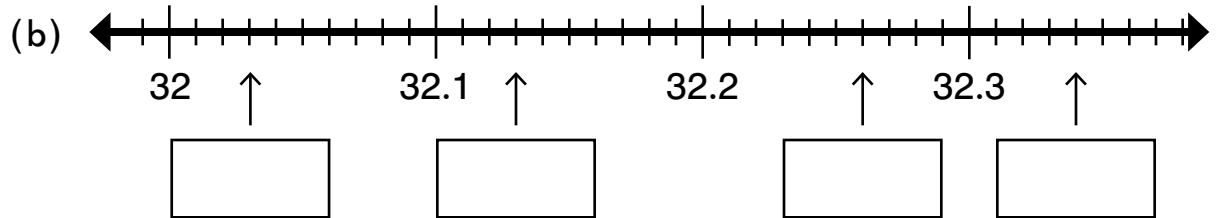
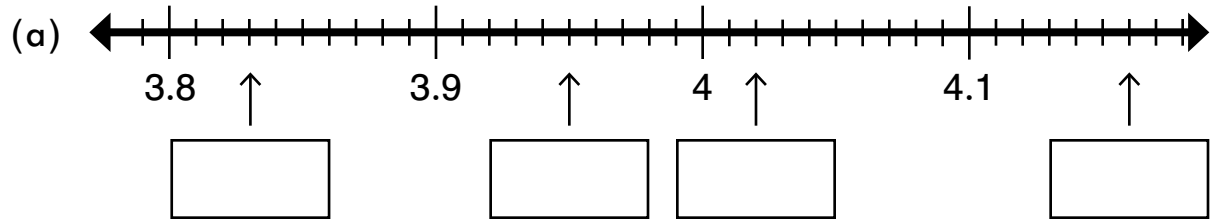
(d) The digit _____ is in the _____ place. Its value is 0.8.

(e) The digit 4 is in the _____ place. Its value is _____.

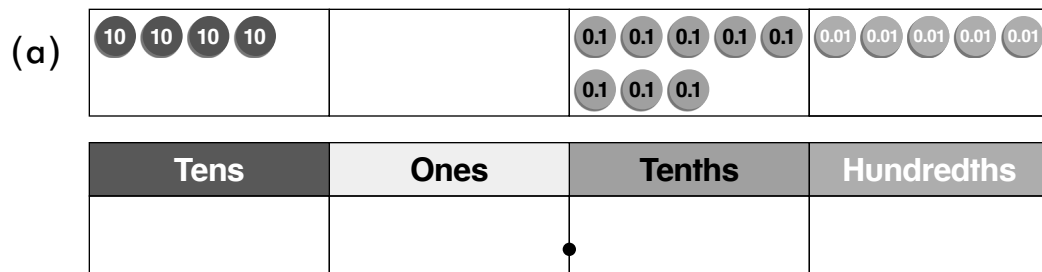
(f) $70 + 5 + 0.8 + 0.04 = \boxed{}$

Practice

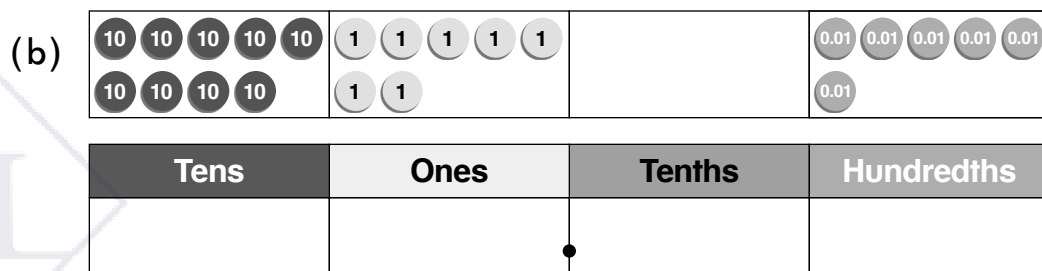
- 4 Write the decimal indicated by each arrow.



- 5 Write the decimals represented by the place-value discs. Then write each number in expanded form.



Expanded form:



Expanded form:

Chapter 13 Addition and Subtraction of Decimals

Exercise 1

Basics

1 6 tenths + 3 tenths = tenths

$$0.6 + 0.3 = \text{}$$

2 6 tenths + 4 tenths = tenths = one

$$0.6 + 0.4 = \text{}$$

3 6 tenths + 7 tenths = tenths = one tenths

$$0.6 + 0.7 = \text{}$$

4 8 tenths - 6 tenths = tenths

$$0.8 - 0.6 = \text{}$$

5 1 one - 6 tenths = tenths - 6 tenths = tenths

$$1 - 0.6 = \text{}$$

6 1 one 4 tenths - 6 tenths = tenths - 6 tenths = tenths

$$1.4 - 0.6 = \text{}$$

Practice

7 Add or subtract.

(a) $0.3 + 0.4 =$

(b) $0.5 + 0.6 =$

(c) $0.9 + 0.8 =$

(d) $0.7 + 0.6 =$

(e) $0.7 - 0.5 =$

(f) $1.7 - 0.9 =$

(g) $1.2 - 0.7 =$

(h) $1.4 - 0.8 =$

8 Write the missing values.

(a) $0.5 +$ $= 1.2$

(b) $+ 0.6 = 1.8$

(c) $1.3 -$ $= 0.5$

(d) $- 0.6 = 0.4$

Challenge

9 Add or subtract using mental math.

(a) $7.8 + 0.9 =$

(b) $4.8 + 0.8 =$

(c) $6.1 - 0.9 =$

(d) $9.4 - 0.7 =$

(e) $0.2 + 0.5 + 0.6 + 0.9 + 0.8 + 0.4 + 0.5 + 0.1 + 0.7 =$

Chapter 15 Angles

Exercise 1

Basics

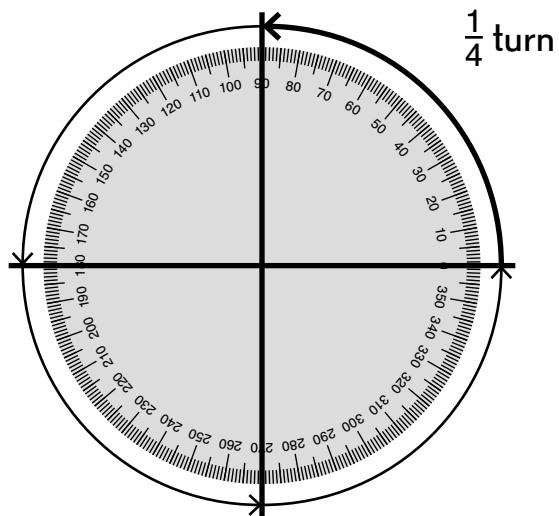
- 1 A complete turn is 360 degrees.

$$1 \text{ turn} = 360^\circ$$

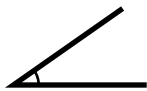





$$\frac{1}{4} \text{ turn} = \frac{1}{4} \times 360^\circ = \boxed{}^\circ$$

$$\frac{1}{2} \text{ turn} = \frac{1}{2} \times 360^\circ = \boxed{}^\circ$$

$$\frac{3}{4} \text{ turn} = \frac{3}{4} \times 360^\circ = \boxed{}^\circ$$

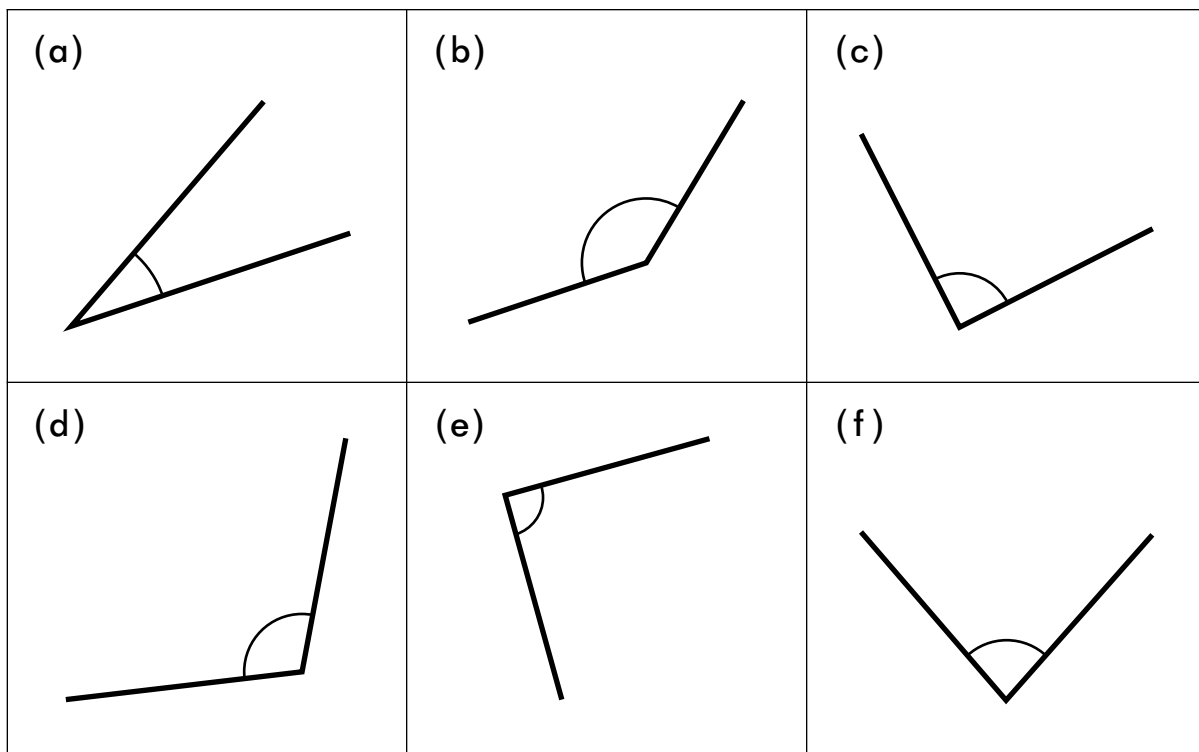


- 2 Write 0° , 90° , 180° , or 360° in each blank to complete the table.

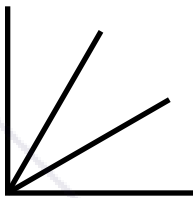
	acute angle	less than _____
	right angle	equal to _____
	obtuse angle	between _____ and _____
	straight angle	equal to _____
	reflex angle	between _____ and _____
	full turn	equal to _____

Practice

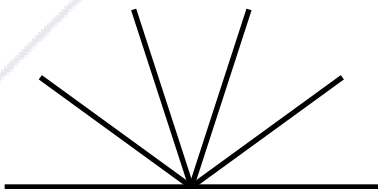
- 3 Use the right angle on a set square or the corner of an index card to identify each angle as an acute angle, a right angle, or an obtuse angle.



- 4 (a) A right angle is divided into 3 equal angles. What is the measure of each smaller angle in degrees?

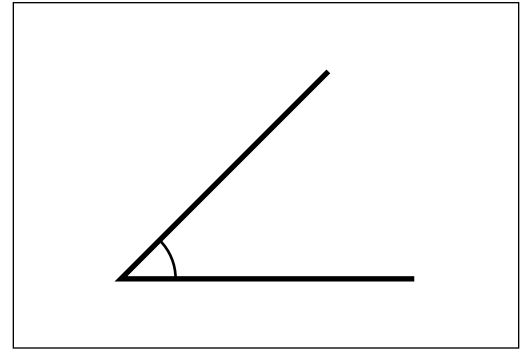
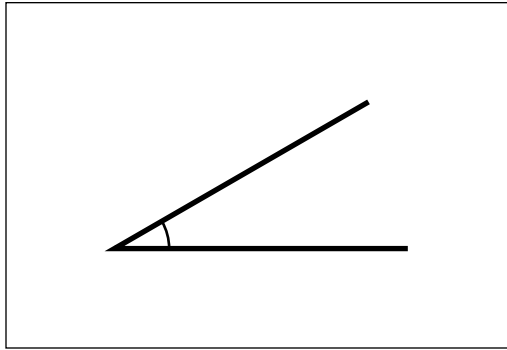


- (b) A straight line is divided into 5 equal angles. What is the measure of each smaller angle in degrees?



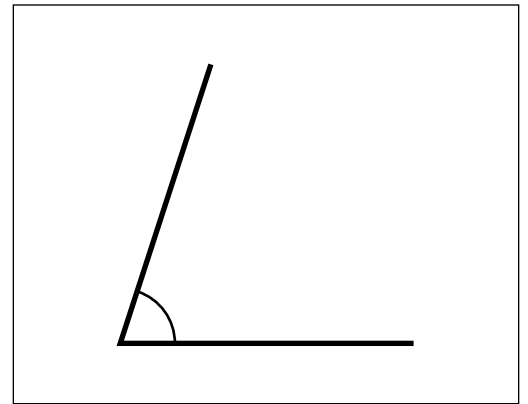
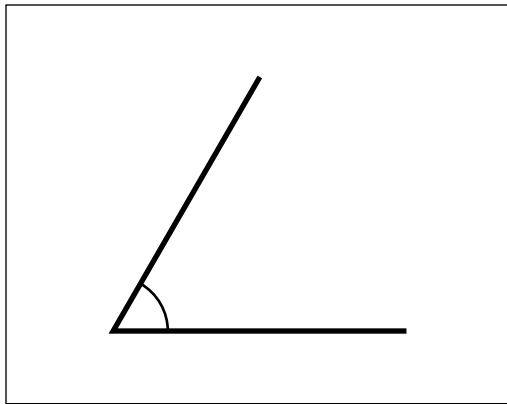
- 5 The fraction of a whole turn is given for each of these angles. Give the measure of each in degrees.

(a) $\frac{1}{12}$ turn = $\frac{1}{12} \times 360^\circ = \square^\circ$ (b) $\frac{1}{8}$ turn = $\frac{1}{8} \times 360^\circ = \square^\circ$



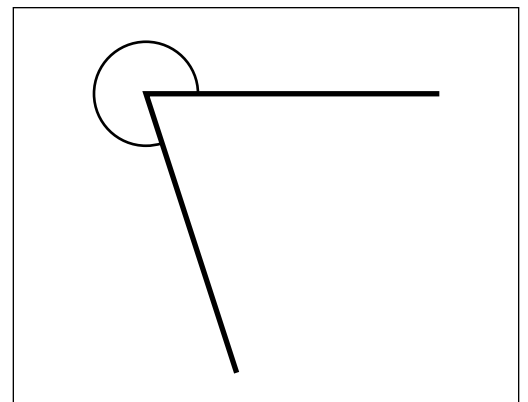
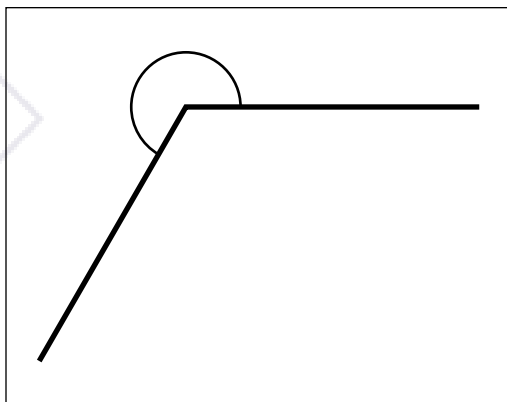
(c) $\frac{1}{6}$ turn = \square°

(d) $\frac{1}{5}$ turn = \square°



(e) $\frac{2}{3}$ turn = \square°

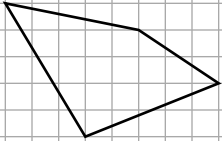
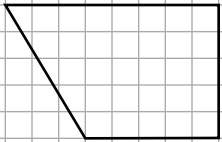
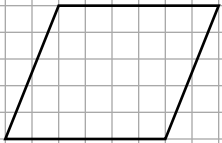

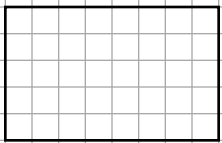
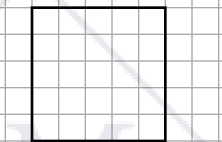
(f) $\frac{4}{5}$ turn = \square°



Exercise 4

Basics

- 1 Write a check mark below each name for each quadrilateral. Use the definitions below.

	Trapezoid	Parallelogram	Rhombus	Rectangle	Square
					
					
					
					
					
					

Trapezoid

Quadrilateral with at least one pair of parallel sides.

Parallelogram

Trapezoid with two pairs of parallel sides.

Rhombus

Parallelogram with four equal sides.

Rectangle

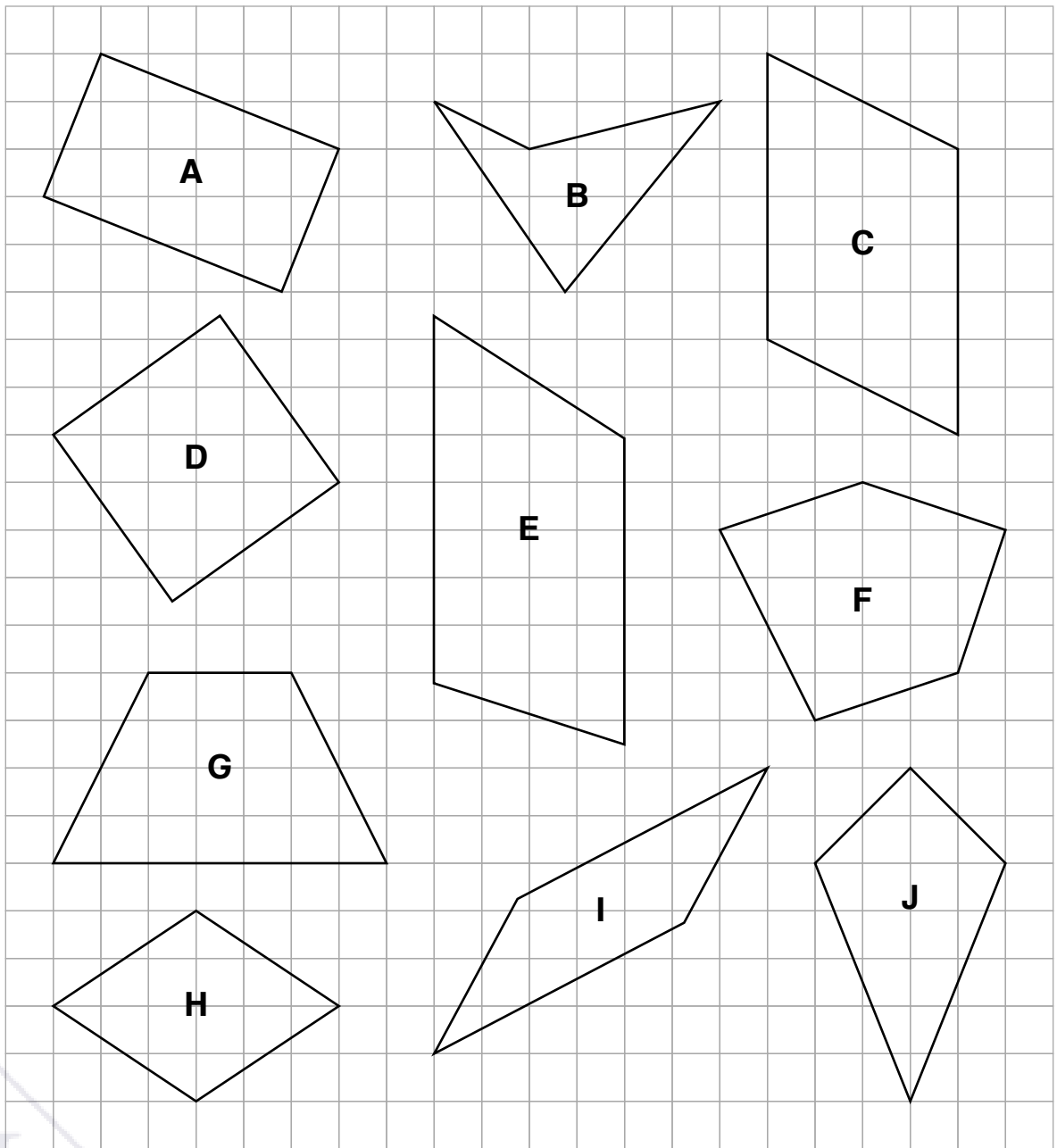
Parallelogram with four right angles.

Square

Rhombus with four right angles.

Practice

- 2 Complete the table. Use a set square if needed to check right angles and parallel sides, and a ruler or compass to compare lengths.



Quadrilateral	Trapezoid	Parallelogram	Rhombus	Rectangle	Square
A,	A,	A,		A,	