

Exercise 9

Basics

- 1 Divide 952 by 8.

9 hundreds \div 8 is _____ hundred
with 1 hundred left over.

15 tens \div 8 is _____ ten with 7 tens left over.

72 ones \div 8 is _____ ones with 0 ones left over.

$$952 \div 8 = \boxed{}$$

Check: $\boxed{} \times 8 = 952$

- 2 Divide 672 by 9.

$$672 \div 9 \text{ is } \boxed{} \text{ with a remainder of } \boxed{}.$$

Check: $\boxed{} \times 9 + 6 = 672$

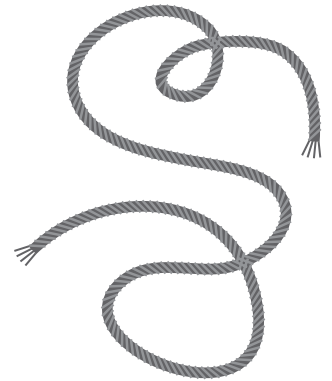
Practice

3 Divide.

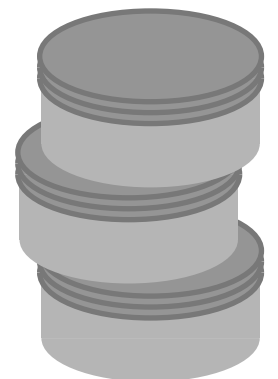
The sum of the remainders should equal the product of 9 and 2.

$972 \div 8$	$473 \div 9$	$555 \div 9$	$683 \div 8$
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4 A rope is 458 m long.
It is cut into pieces that are each 8 m long.
How many pieces are there?
How long is the leftover piece?



5 A baker made 250 cookies and gave away 34 of them.
She put the rest equally into 9 tins.
How many cookies are in each tin?



Exercise 2

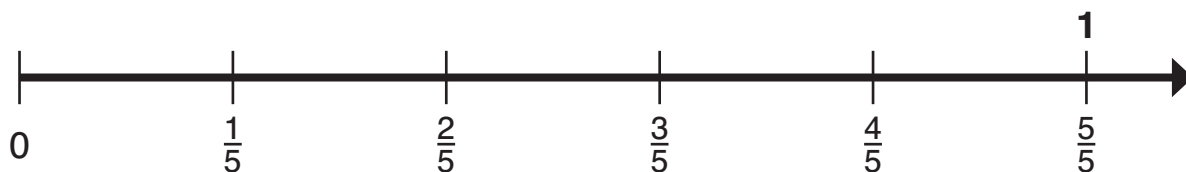
Basics

- 1 A one-meter tape has been divided into 5 equal parts.
3 parts are shaded.

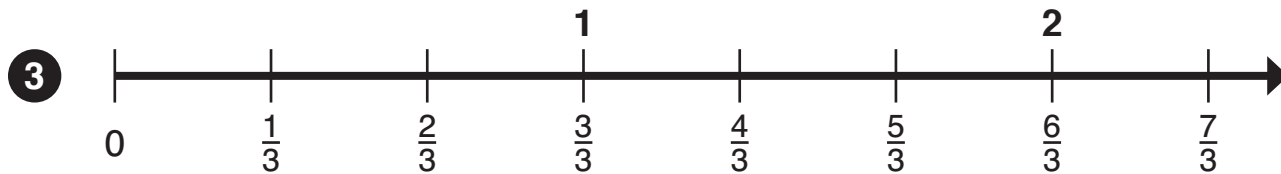


- (a) $\frac{3}{\quad}$ of the tape is shaded.
- (b) The shaded part is $\frac{\quad}{\quad}$ of a meter long.
- (c) The rope is $\frac{\quad}{\quad}$ m long.

- 2 Answer the questions based on the number line.

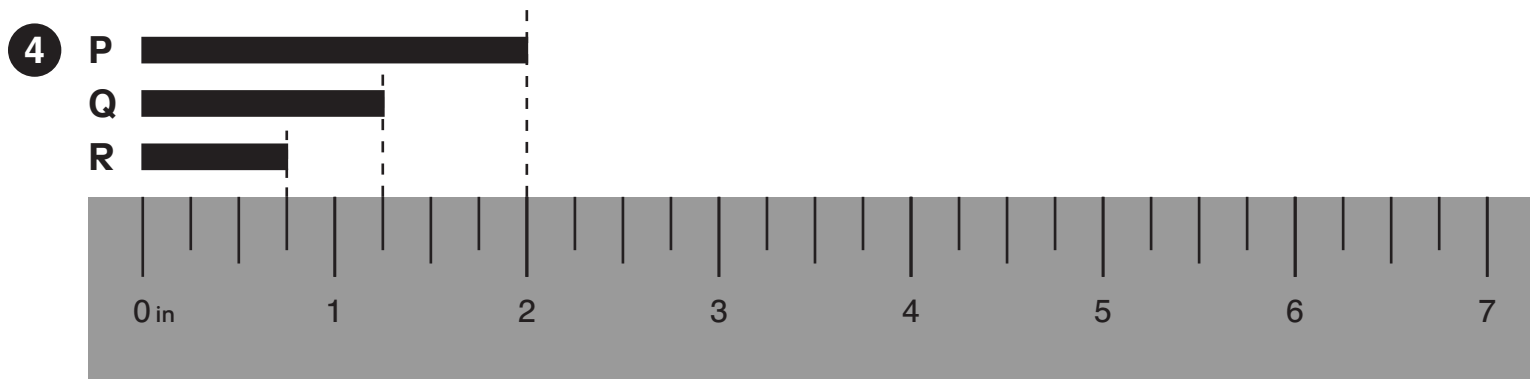


- (a) The number line is divided into _____ equal parts between 0 and 1.
- (b) There are _____ equal increments of $\frac{1}{5}$ between 0 and 1.
- (c) $\frac{5}{5}$ is the same as _____.
- (d) There are _____ equal increments of $\frac{1}{5}$ between 0 and $\frac{3}{5}$.
- (e) There are 2 equal increments between $\frac{\quad}{5}$ and 1.
- (f) $\frac{5}{5}$ is $\frac{1}{5}$ and $\frac{\quad}{\quad}$.



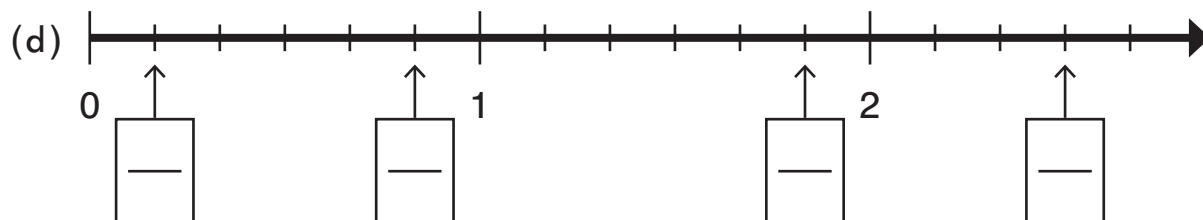
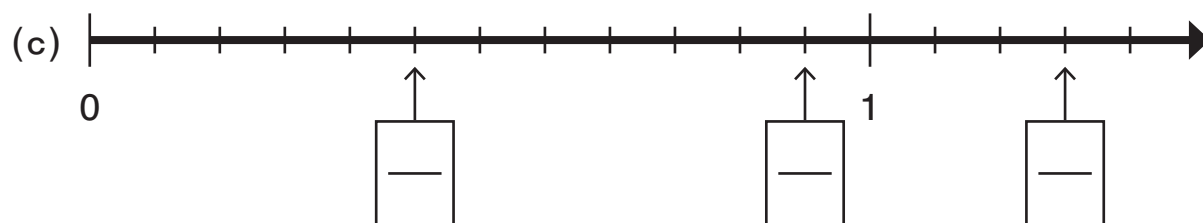
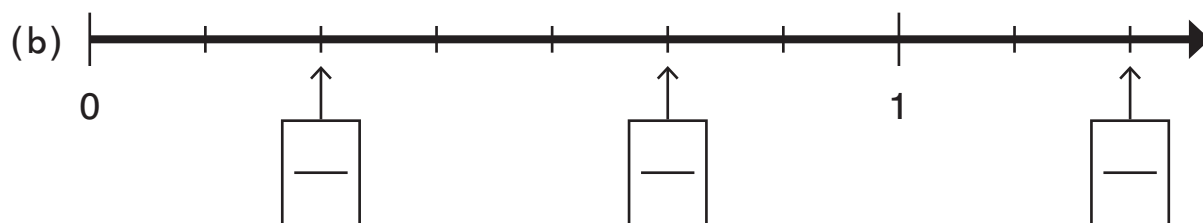
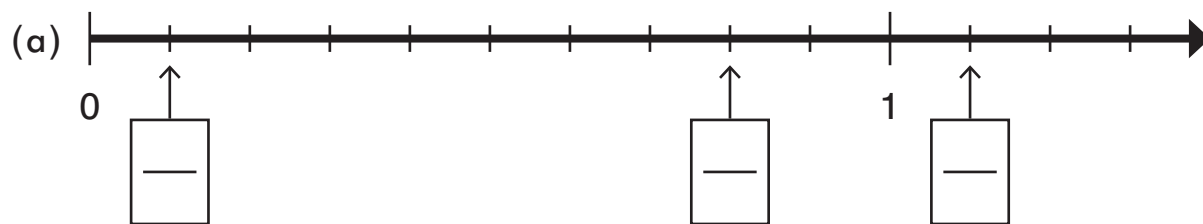
- (a) The number line between 0 and 1 and also between 1 and 2 is divided into _____ equal parts.
- (b) There are _____ thirds in $\frac{5}{3}$.
- (c) There are _____ thirds in 2.
- (d) $\frac{4}{3}$ is _____ thirds less than $\frac{7}{3}$.

Practice



- (a) This ruler shows increments of inch for each tick mark.
- (b) Write the lengths of each line in fourths of an inch:
 Line R: in Line Q: in Line P: in
- (c) Line _____ is $\frac{2}{4}$ inches longer than line _____.
- (d) Line R is inches shorter than line P.

- 5** Label the numbers marked with arrows on each number line.
Use those fractions to answer the questions below.



- (e) List the fractions from problems (a) through (d) that are less than 1.
- (f) List the fractions from problems (a) through (d) that are between 1 and 2.

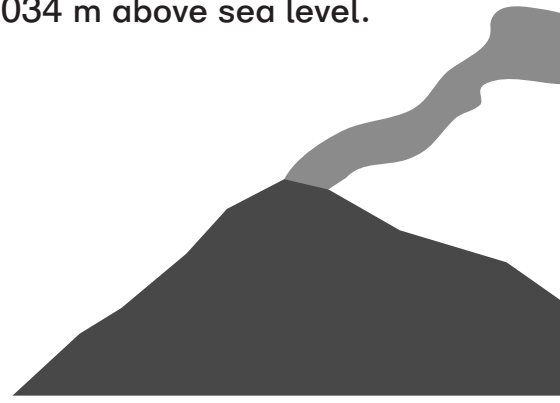
Challenge

- 6** (a) _____ fifths make 5. (b) _____ tenths make 100.
- (c) $\frac{\boxed{}}{3}$ make 9. (d) $\frac{12}{\boxed{}}$ make 3.

- 4 The Hayes Volcano in Alaska has a height of 3,034 m above sea level. Find its height in kilometers and meters.

$$3,034 \text{ m} = 3,000 \text{ m} + \boxed{} \text{ m}$$
$$= \boxed{} \text{ km } \boxed{} \text{ m}$$

Hayes is _____ km _____ m high.



Practice

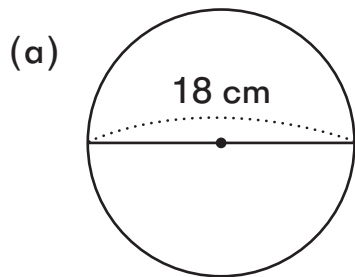
- 5 (a) 5 km 300 m = m (b) 2 km 205 m = m
- (c) 9 km 819 m = m (d) 6 km 80 m = m
- (e) 1 km 10 m = m (f) 7 km 7 m = m

- 6 (a) 8,700 m = km m
- (b) 9,147 m = km m
- (c) 5,065 m = km m
- (d) 6,002 m = km m

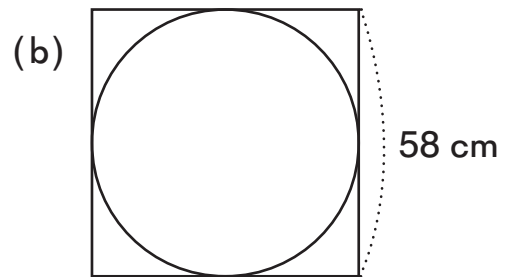
- 7 Write >, <, or = in each .

- (a) 2 km 520 m 2,450 m (b) 8 km 18 m 818 m
- (c) 5,100 m 5 km 1 m (d) 5,070 m 5 km 70 m

5 How long is the radius of the each circle?



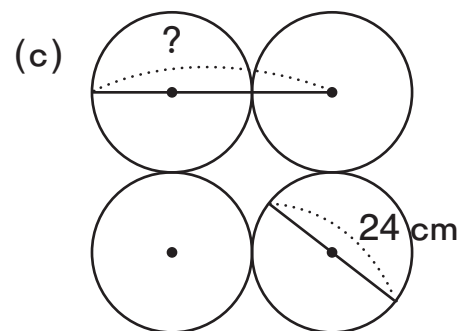
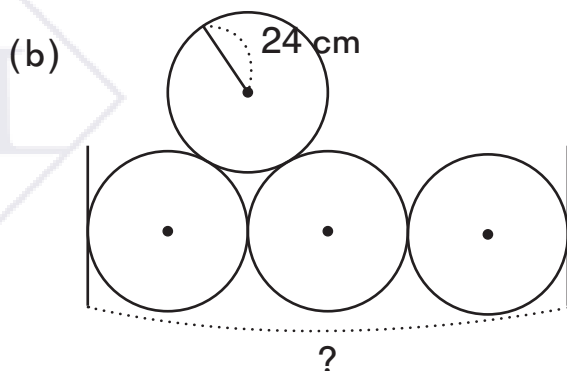
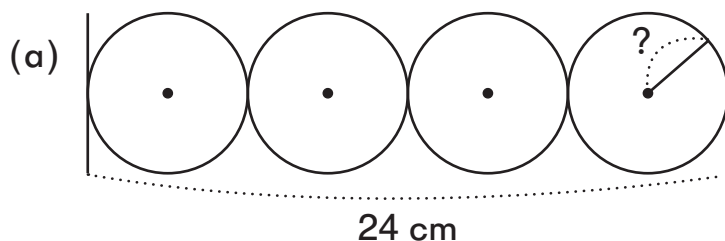
Radius: cm



Radius: cm

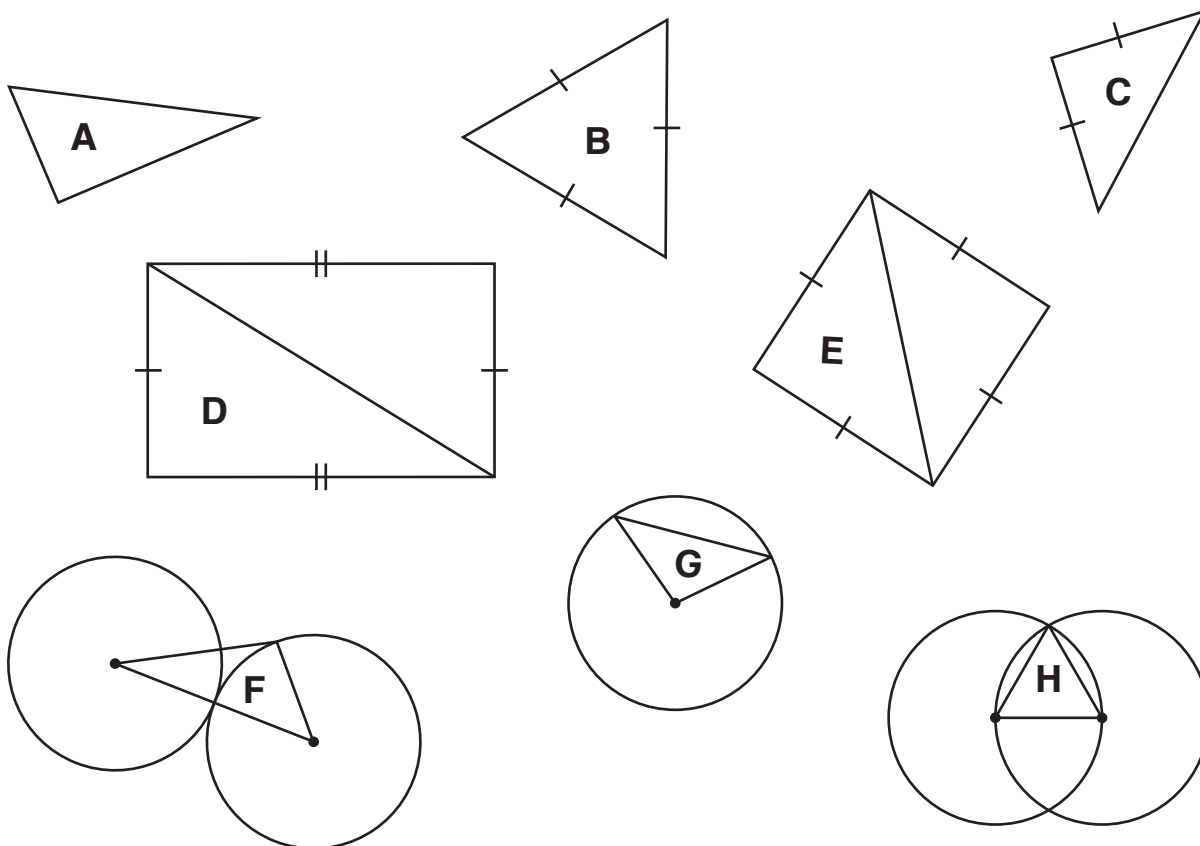
6 A quarter-circle has a straight side of 18 cm.
How long is the diameter of the circle?

7 All four circles in each problem are the same size.
Find the unknown lengths.



Practice

- 2 In each figure, sides with the same number of hash marks are equal in length, and all the circles have the same length radii. Sort the labeled triangles according to the number of equal sides.



3 equal sides	Exactly 2 equal sides	0 equal sides

Challenge

- 3 Is it possible to draw a triangle that has sides of the following measurements? Write “yes” or “no” next to each set of measurements.

(a) 5 cm, 4 cm, 11 cm

(b) 2 cm, 6 cm, 5 cm

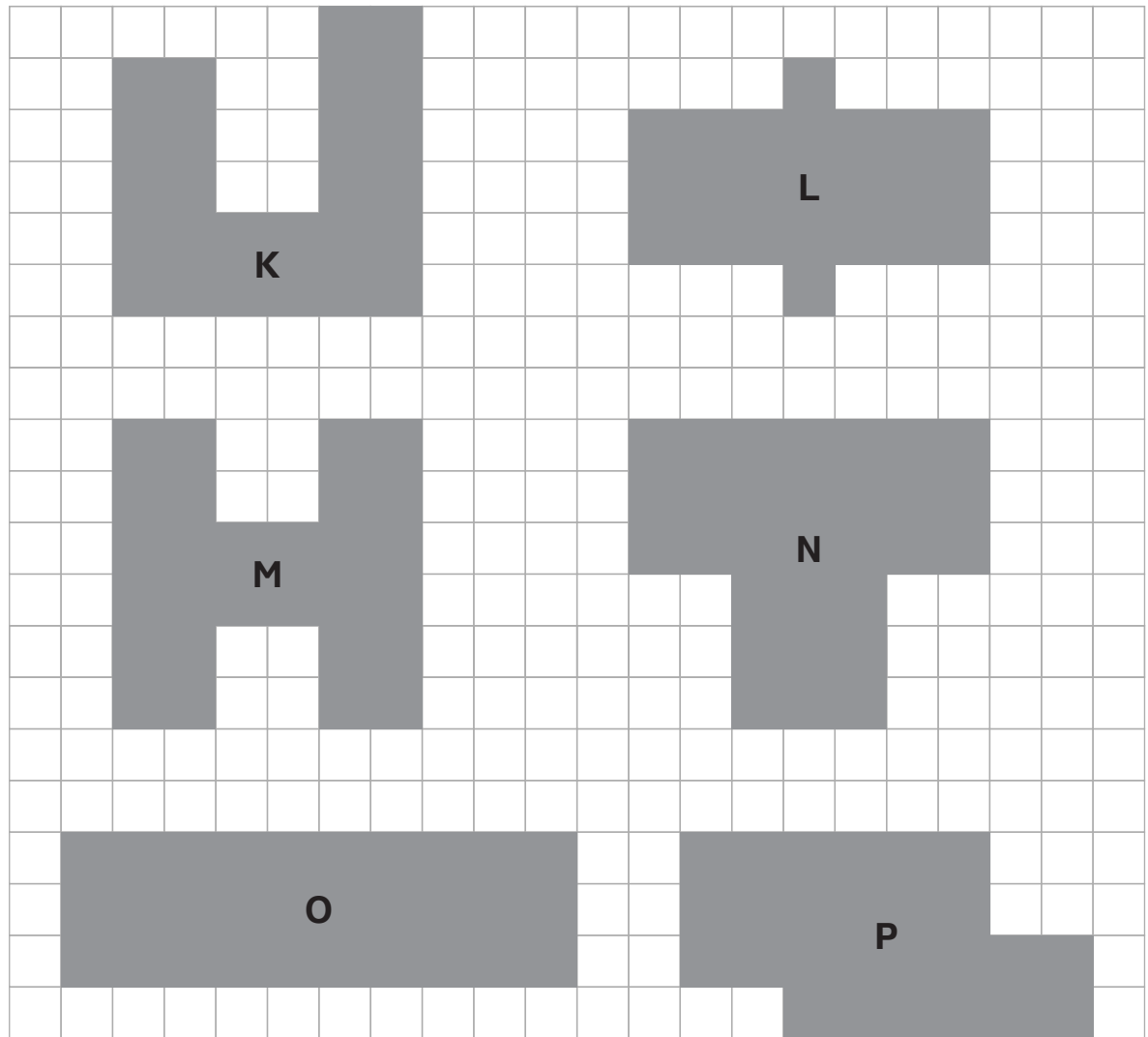
(c) 11 cm, 6 cm, 7 cm

(d) 8 cm, 3 cm, 5 cm

Exercise 8

Basics

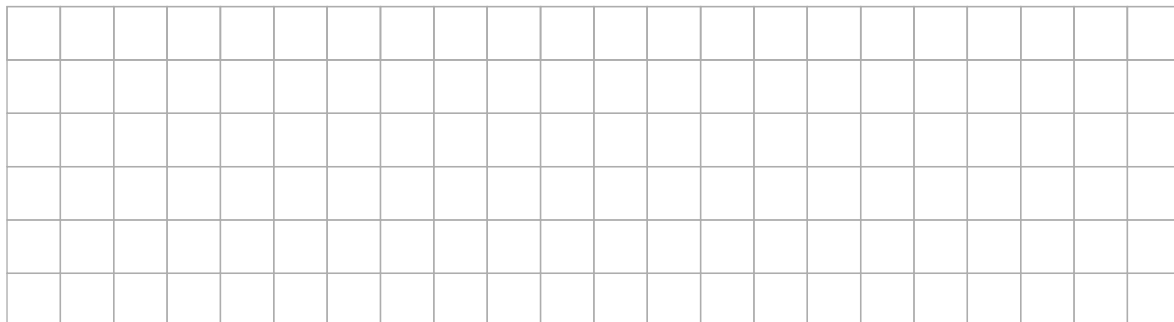
- 1 Each small square on the grid has a side length of 1 unit.



- (a) Which figures have the same area and different perimeters?
- (b) Which figures have the same perimeter but different areas?
- (c) Which figures have the same area and perimeter?

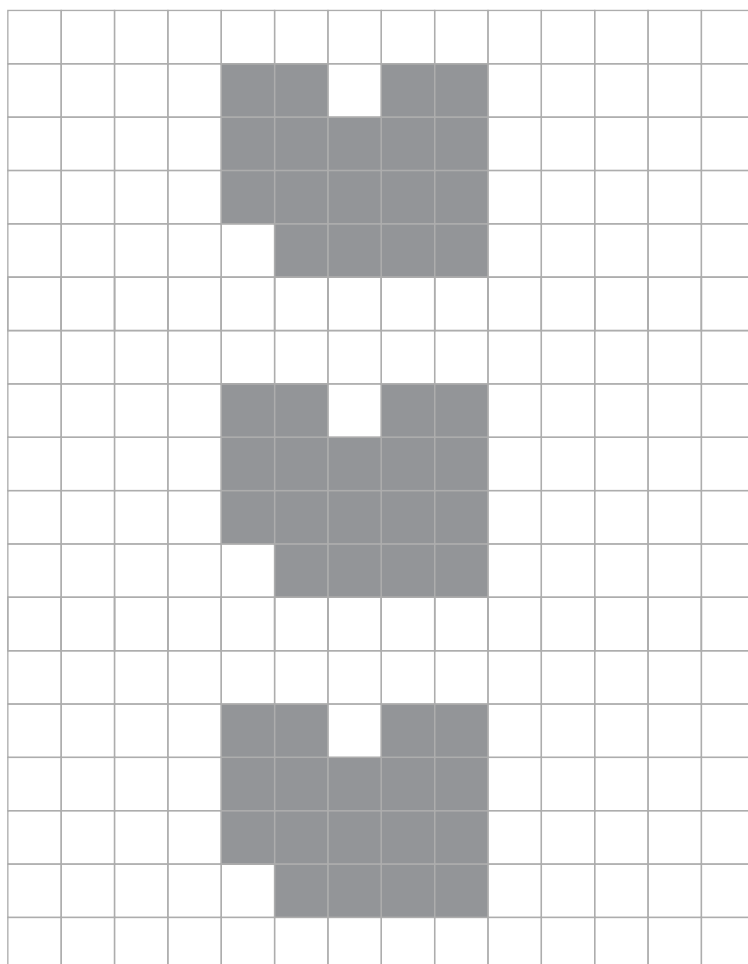
Practice

- 2 Use the grid to draw three different rectangles with perimeters of 16 units. Write the area of each figure. Which figure has the smallest area?



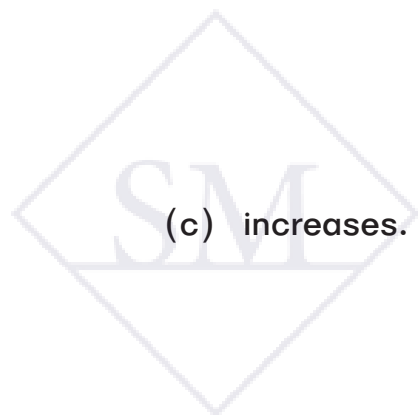
- 3 Shade one square so that the area of the figure is increased by 1 square unit, but the perimeter...

(a) decreases.



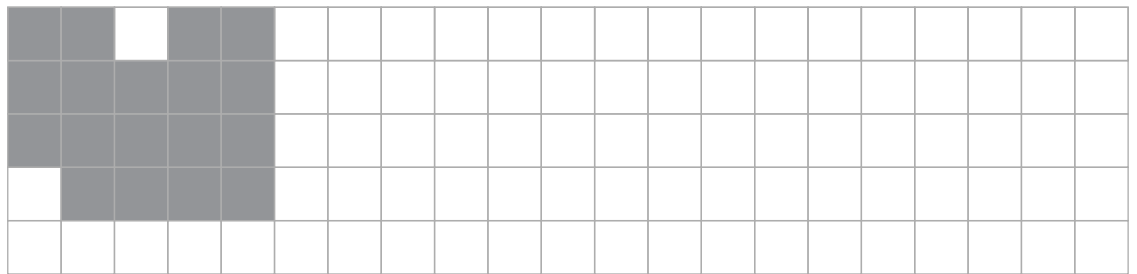
(b) stays the same.

(c) increases.

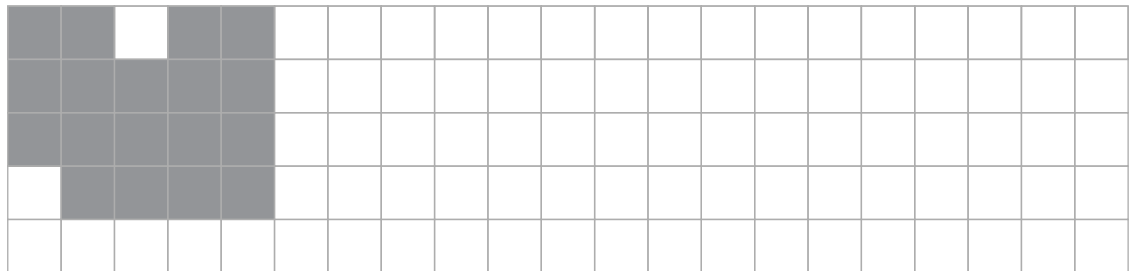


4 Draw another figure that has...

(a) the same area and perimeter.



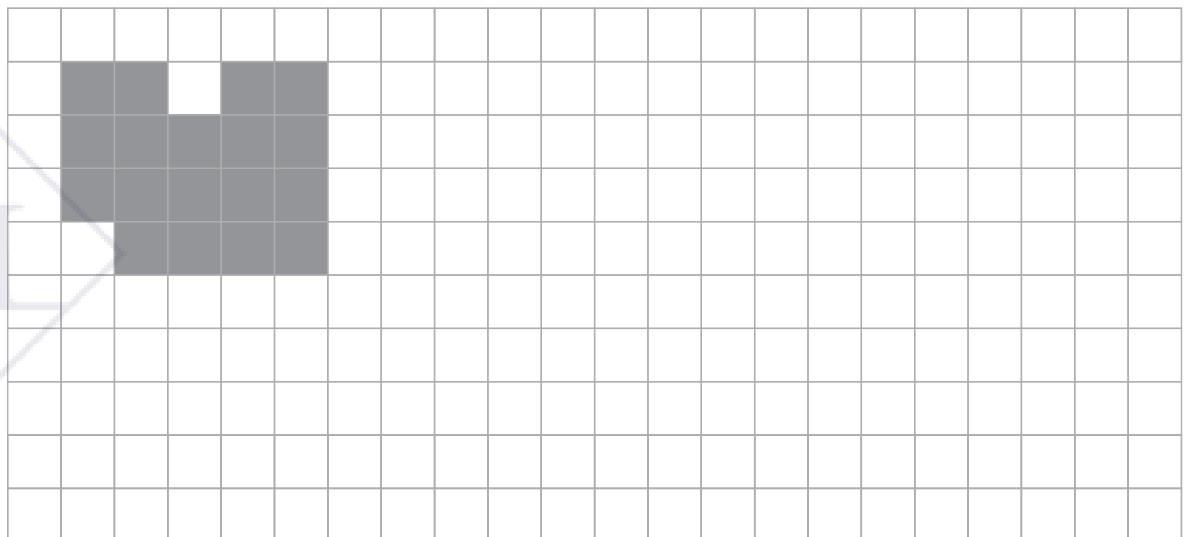
(b) a greater perimeter but smaller area.



Challenge

5 Draw a rectangle with the largest possible perimeter that has a smaller area than the given figure.

The sides of the rectangle must be whole numbers of units.



Exercise 5

Basics

1 (a) $3 \text{ h} - 45 \text{ min} = 2 \text{ h } \boxed{}$ min

$\begin{array}{l} / \quad \backslash \\ 2 \text{ h} \quad 60 \text{ min} \end{array}$

(b) $3 \text{ h } 10 \text{ min} - 45 \text{ min} = 2 \text{ h } \boxed{}$ min

$\begin{array}{l} / \quad \backslash \\ 2 \text{ h } 10 \text{ min} \quad 60 \text{ min} \end{array}$

(c) $7 \text{ h } 10 \text{ min} \xrightarrow{-4 \text{ h}} 3 \text{ h } 10 \text{ min} \xrightarrow{-45 \text{ min}} \boxed{} \text{ h } \boxed{} \text{ min}$

(d) 4 hours 45 minutes before 7:10 a.m. is _____.

2 (a) $3 \text{ h} - 10 \text{ min} = 2 \text{ h } \boxed{}$ min

(b) $4 \text{ h } 25 \text{ min} - 35 \text{ min} = \boxed{} \text{ h } \boxed{} \text{ min}$

$\begin{array}{l} / \quad \backslash \\ 25 \text{ min} \quad 10 \text{ min} \end{array}$

(c) $4 \text{ h } 25 \text{ min} - 1 \text{ h } 35 \text{ min} = \boxed{} \text{ h } \boxed{} \text{ min}$

(d) 1 hour 35 minutes before 4:25 p.m. is _____.

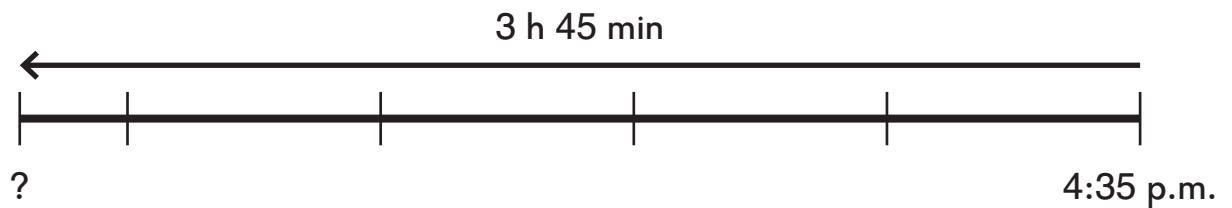
3 (a) $54 \text{ min} = 1 \text{ h} - \boxed{}$ min

(b) $3 \text{ h } 20 \text{ min} \xrightarrow{-1 \text{ h}} 2 \text{ h } 20 \text{ min} \xrightarrow{+6 \text{ min}} \boxed{} \text{ h } \boxed{} \text{ min}$

(c) $5 \text{ h } 20 \text{ min} - 2 \text{ h } 54 \text{ min} = \boxed{} \text{ h } \boxed{} \text{ min}$

(d) 2 hours 54 minutes before 5:20 p.m. is _____.

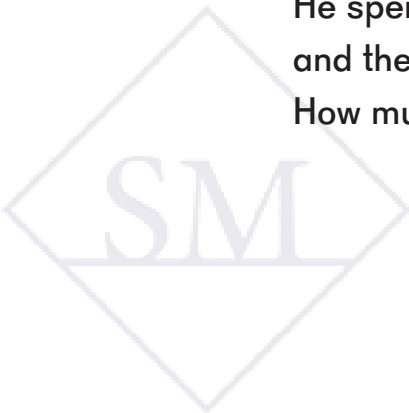
- 8** Mia spent 3 hours 45 minutes at a park.
She left the park at 4:35 p.m.
What time did she get to the park?



- 9** Megan exercised for 1 hour 25 minutes on Monday.
She exercised for 2 hours 15 minutes on Wednesday.
How much longer did she exercise on Wednesday than on Monday?



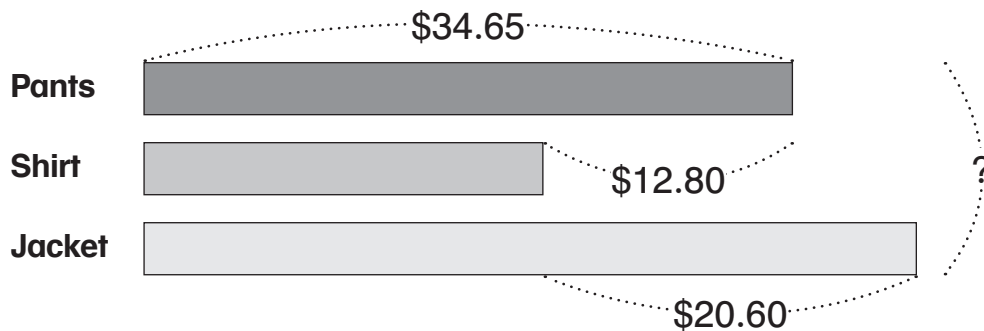
- 10** Arman spent 5 hours 15 minutes at the lake.
He spent 35 minutes having a picnic, 1 hour 20 minutes swimming,
and the rest of the time fishing.
How much time did he spend fishing?



Exercise 5

Basics

- 1 A pair of pants costs \$34.65.
A shirt costs \$12.80 less than the pants.
A jacket costs \$20.60 more than the shirt.
How much do the three items cost altogether?



- 2 3 identical shirts cost \$45.
A dress costs \$5.20 more than a shirt.
How much do 5 shirts and 1 dress cost altogether?

