

## Step In

# Reinforcing the Partial-Quotients Strategy to Divide Four-Digit Dividends

A beachside apartment costs \$5236 to rent for four weeks.

What is the price of one week?

Would it cost more or less than \$1000 a week? How do you know?

Caroline wrote these number sentences to work out the price.

Complete each of the sentences.

How did she break 5236 into parts that are easier to divide by 4?

What is another way to break 5236 into parts?

$$4000 \div 4 = \underline{\hspace{2cm}}$$

$$1200 \div 4 = \underline{\hspace{2cm}}$$

$$36 \div 4 = \underline{\hspace{2cm}}$$

$$5236 \div 4 = \underline{\hspace{2cm}}$$

Another apartment costs \$1620 for four weeks rent.

What is the price of one week?



You could break 1620 into parts that are easier to divide by 4. This diagram shows you how.

16 hundreds

20 ones

$$1600 \div 4 = \underline{\hspace{2cm}}$$

$$20 \div 4 = \underline{\hspace{2cm}}$$

$$1620 \div 4 = \underline{\hspace{2cm}}$$

Complete the sentences.

## Step Up

1. Break each number into parts that are easy to divide by 5.

a.

3550

\_\_\_\_\_ hundreds

\_\_\_\_\_ ones

b.

2505

\_\_\_\_\_ hundreds

\_\_\_\_\_ ones

c.

1525

\_\_\_\_\_ hundreds

\_\_\_\_\_ ones



# Step Ahead

Colour the numbers that you can divide **equally** by 4.

3216

4810

1720

5204

5642

d.  $4650 \div 5 =$  \_\_\_\_\_

e.

$4206 \div 3 =$  \_\_\_\_\_

f.

$9640 \div 8 =$  \_\_\_\_\_

a.

$5612 \div 4 =$  \_\_\_\_\_

b.

$8407 \div 7 =$  \_\_\_\_\_

c.

$7830 \div 6 =$  \_\_\_\_\_

a.

$1720 \div 4 =$  \_\_\_\_\_

b.

$1659 \div 3 =$  \_\_\_\_\_

c.

$1926 \div 6 =$  \_\_\_\_\_

$1600 \div 4 =$  \_\_\_\_\_

$1500 \div 3 =$  \_\_\_\_\_

$1800 \div 6 =$  \_\_\_\_\_

$120 \div 4 =$  \_\_\_\_\_

$\div 3 =$  \_\_\_\_\_

$\div 6 =$  \_\_\_\_\_

$\div 3 =$  \_\_\_\_\_

$\div 6 =$  \_\_\_\_\_

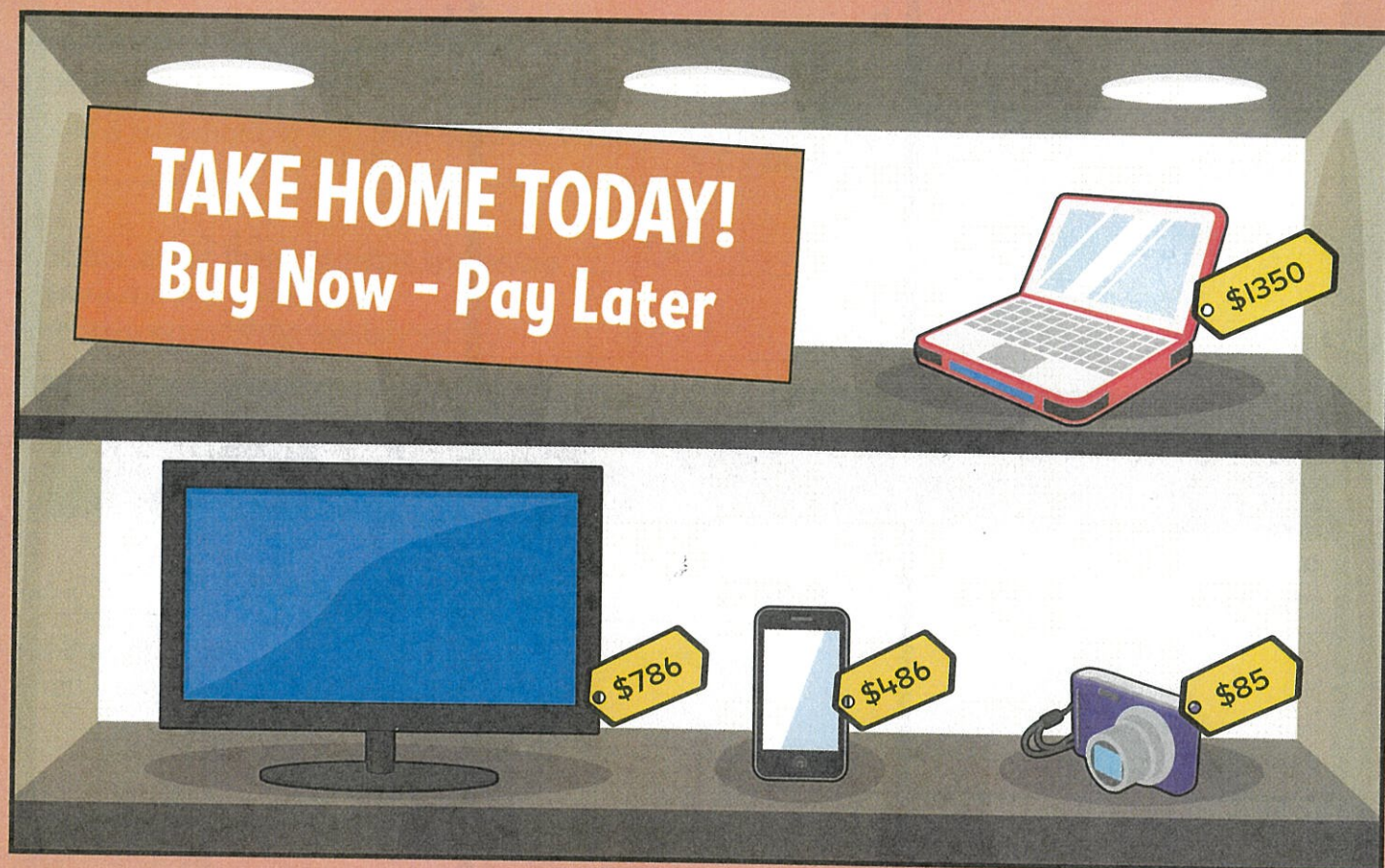
2. Write number sentences to work out each of these.

3. Estimate each answer in your head.  
Then write number sentences to work out the exact amount.



## Step In

## Solving Word Problems Involving Division



Imagine you buy one of these items and pay for it over several months.  
How would the store work out the amount you need to pay each month?

Imagine you buy the television and pay equal monthly amounts over six months.

How much would you pay each month?

How could you break 786 into parts that are easy to divide by 6?



Imagine you buy the phone and pay equal monthly amounts over six months.  
What amount will you pay each month?



## Step Up


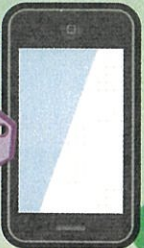

Look at the prices on page 118. Solve these word problems. Show your thinking.

- a. Addison buys the phone. She pays \$50 first then pays 4 equal monthly payments. How much does she pay each month?
- b. Noah buys the laptop and camera. He makes equal monthly payments over 7 months. How much does he pay each month?

- c. Ahmed buys six cameras for his class. He makes equal payments over 5 months. How much does he pay each month?
- d. Hina buys the phone and laptop. She makes equal monthly payments over 6 months. How much does she pay each month?

## Step Ahead

Calculate the monthly payments for each phone. Then draw a ✓ beside the plan that you would choose.

<p>A</p>  <p>\$520</p> <p>paid over 8 months</p> <p>\$ _____ each month</p>	<p>B</p>  <p>\$847</p> <p>paid over 7 months</p> <p>\$ _____ each month</p>	<p>C</p>  <p>\$635</p> <p>paid over 5 months</p> <p>\$ _____ each month</p>
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## Step In

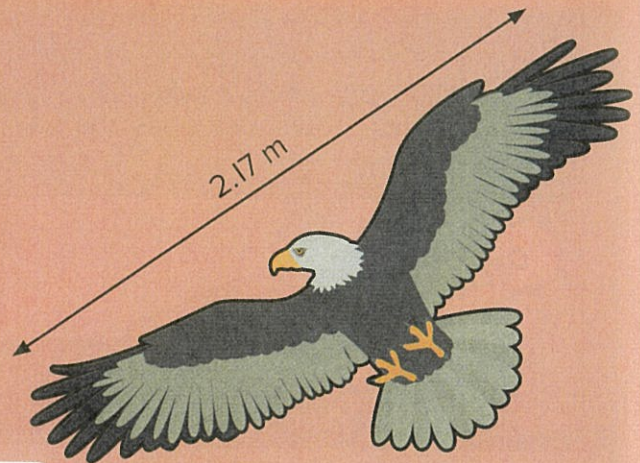
## Recording Combinations of Length Units

Look at the picture.

How would you say the wingspan of the eagle?

How would you say the wingspan in metres and centimetres?

How would you say the wingspan in centimetres?



I know there are one hundred centimetres in one metre.

What is another way you could say the wingspan?



## Step Up

1. Loop the most sensible measure for each of these.

a. The amount of rain that fell overnight was

46 cm

4.6 mm

46 m

4.6 m

b. The length of the classroom is about

9680 cm

96.8 m

968 mm

9.68 m

c. In one hour, the world's fastest woman ran

18 m

18 000 cm

18 000 m

18 mm

d. The distance around the school sports field is

4850 m

485 m

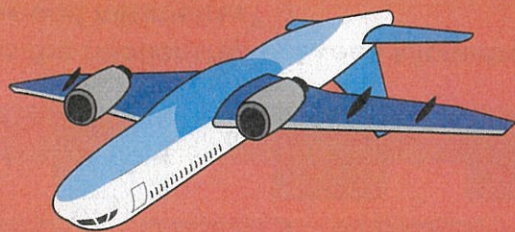
48 500 m

48.5 m



# Step Ahead

This plane has a wingspan of 60 m. There is 60 cm clearance on each side of the plane as it enters the hanger.



\_\_\_\_\_ m

How wide is the hanger entrance?

- a. A palm cockatoo's wingspan is 1.1 m. This is 20 cm more than a kookaburra. What is the wingspan of the kookaburra?

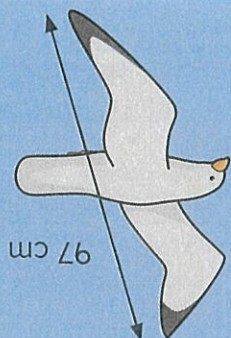
\_\_\_\_\_ m

- b. A vulture's wingspan is 2.3 m. A magpie's wingspan is 80 cm. What is the difference between their wingspans?

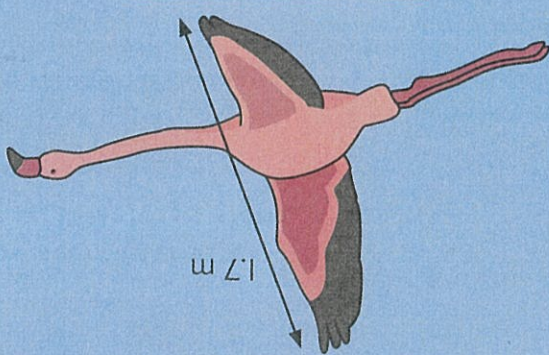
\_\_\_\_\_ m

3. Solve these word problems. Show your thinking.

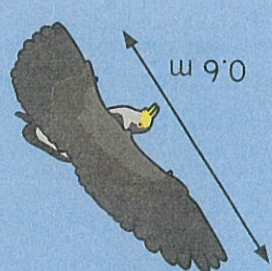
\_\_\_\_\_ m



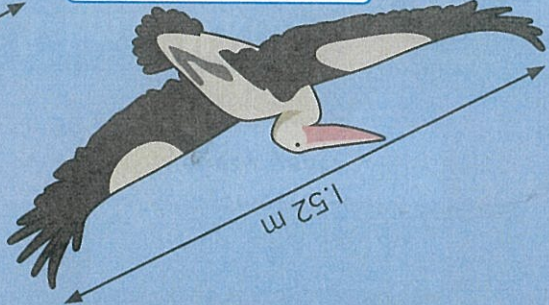
\_\_\_\_\_ m  
\_\_\_\_\_ cm



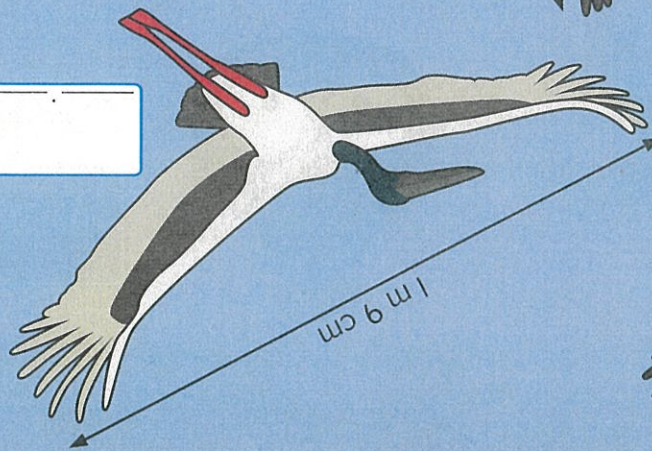
\_\_\_\_\_ m  
\_\_\_\_\_ cm



\_\_\_\_\_ m  
\_\_\_\_\_ cm



\_\_\_\_\_ m

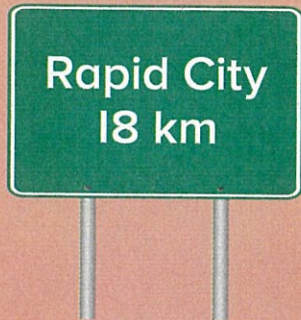


2. Record the length of each wingspan in a different way.



## Step In → Introducing Kilometres

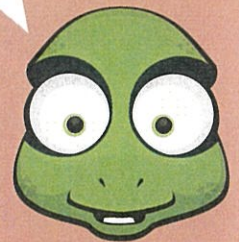
Where do you hear or see kilometres used?



I have seen kilometres used on some road signs.

My mum and dad do a 5-kilometre fun run every year.

5-km FUN RUN



Kilometres are used to measure long distances. How is **kilo** different from **milli**?

Look at a metre ruler.

How many metre rulers would you need to make one kilometre?

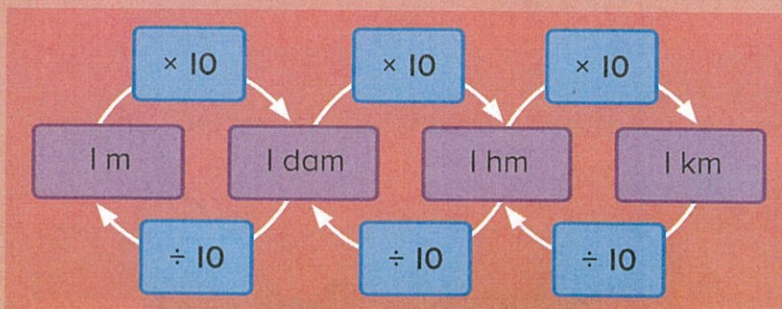
In the word **kilometre**, **kilo** means one thousand. A related word is **kilogram**, which is equal to 1000 grams. A short way to write **kilometre** is **km**.

What do you remember about the decimetre?

Some other metric units of length are not used often but help show the relationship between units of length.

A **decametre** is equal to 10 metres. A short way to write **decametre** is **dam**. A **hectometre** is equal to 100 metres. A short way to write **hectometre** is **hm**.

Look at this diagram. What do you notice?



How is the relationship between kilometres and metres the same as the relationship between metres and millimetres?



## Step Up

1. Complete these.

a. 1 kilometre  
is the same length as

m

b. 10 kilometres  
is the same length as

m

c. 100 kilometres  
is the same length as

m

2. a. These walking trails are in a National Park. Loop the trails that are between 1000 and 6000 metres long. Use the information above to help you.

Location	Distance
Duck Lake	1 km 600 m
Mystic Falls	4 km
Garnett Hill	11 km 800 m
Beaver Ponds	8 km
Howard Eaton	11 km 300 m
Ice Lake	500 m
Pelican Valley	10 km 800 m
Two Ribbons	2 km
Rescue Creek	12 km 800 m
Lava Creek	5 km 600 m

- b. William's family walked about 15000 m. Which trails might they have walked? Write two different combinations.

3. Write these lengths in metres.

a. 16 km 8 m is  m

b. 5 km 40 m is  m

## Step Ahead

Complete the table below to show equivalent distances.

mm	cm	dm	m	dam	hm	km
			600			$\frac{6}{10}$