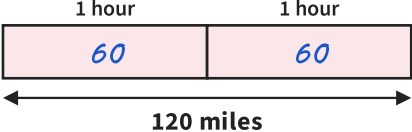
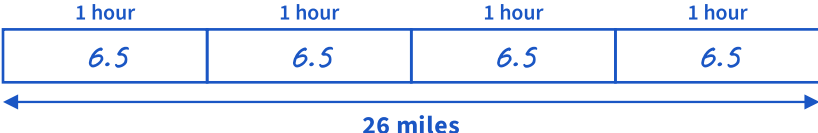
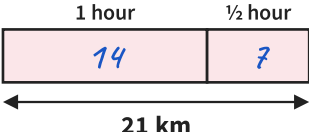
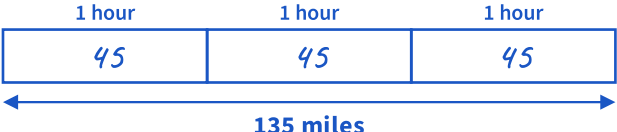


Speed, Distance and Time

Fill in the gap in each row. Use a bar model split into hours.

	Speed	Distance	Time	Bar model
a	60 mph	120 miles	2 hours	
b	6.5 mph	26 miles	From 09:00 to 13:00	
c	14 km/h	21 km	1½ hours	
d	35 mph	140 miles	4 hours	
e	16 km/h	40 km	2½ hours	
f	45 mph	135 miles	3 hours	
g	24 km/h	60 km	2½ hours	

Speed, Distance and Time

1

A van travels 95 km in 2 hours 30 minutes.
Find its speed.

2 hours 30 minutes = 2.5 hours

Time (hours)	1	$\times$	2.5	2.5
Distance (km)	38	$\rightarrow$	95	

speed is the distance in 1 hour

$$\text{speed} = 95 \div 2.5 = 38 \text{ km/h}$$

Answer 38 km/h

2

A motorbike travels 117 miles in 2 hours 15 minutes.
Find its speed.

2 hours 15 minutes = 2.25 hours

Time (hours)	1	$\times$	2.25	2.25
Distance (miles)	52	$\rightarrow$	117	

$$\text{speed} = 117 \div 2.25 = 52 \text{ mph}$$

Answer 52 mph

3

A boat sails 28 km in 1 hour 45 minutes.
Find its speed.

1 hour 45 minutes = 1.75 hours

Time (hours)	1	$\times$	1.75	1.75
Distance (km)	16	$\rightarrow$	28	

$$\text{speed} = 28 \div 1.75 = 16 \text{ km/h}$$

Answer 16 km/h

4

A skater covers 15 km in 45 minutes.
Find the skater's speed.

45 minutes = 0.75 hours

Time (hours)	1	$\times$	0.75	0.75
Distance (km)	20	$\rightarrow$	15	

$$\text{speed} = 15 \div 0.75 = 20 \text{ km/h}$$

Answer 20 km/h

5

A bus travels at 56 mph for
1 hour 15 minutes. How far does it travel?

1 hour 15 minutes = 1.25 hours

Time (hours)	1	$\times$	1.25	1.25
Distance (miles)	56	$\rightarrow$	70	

$$\text{distance} = 56 \times 1.25 = 70 \text{ miles}$$

Answer 70 miles

6

A horse trots at 14 km/h for 45 minutes.
How far does it go?

$$45 \text{ minutes} = 0.75 \text{ hours}$$

$$\text{distance} = 14 \times 0.75 = 10.5 \text{ km}$$

Answer 10.5 km

7

A canal barge travels 18 km at 4 km/h.
How long does it take?

Time (hours)	1	$\times$	4.5	4.5
Distance (km)	4	$\rightarrow$	18	

$$\text{time} = 18 \div 4 = 4.5 \text{ hours}$$

Answer 4.5 hours

8

A train travels 189 km at 84 km/h.
How long does the journey take?
Give your answer in hours and minutes.

$$\text{time} = 189 \div 84 = 2.25 \text{ hours}$$

$$2.25 \text{ hours} = 2 \text{ hours } 15 \text{ minutes}$$

Answer $2 \text{ hours } 15 \text{ minutes}$

Speed, Distance and Time *further practice*

ANSWERS 

9



A cyclist rides 14 km in 40 minutes.
Work out her average speed in km/h.

$$40 \text{ minutes} = \frac{2}{3} \text{ hour}, 14 \div \frac{2}{3}$$

Answer 21 km/h

10



A tram travels 6 km at 24 km/h.
How many minutes does the journey take?

$$6 \div 24 = 0.25 \text{ hours}, 0.25 \times 60$$

Answer 15 minutes

11



Ana runs 10 km in 50 minutes.
Ben runs 7.5 km in 36 minutes.
Who has the greater average speed?
Show your working.

$$\text{Ana } 12 \text{ km/h}, \text{ Ben } 12.5 \text{ km/h}$$

Answer Ben

12



A swimmer swims 4 lengths of a 25 m pool in 80 seconds. Work out her average speed in metres per second.

$$4 \times 25 = 100 \text{ m}, 100 \div 80$$

Answer 1.25 m/s

13



A train travels 117 km.
The timetable shows when it leaves and when it arrives. Work out its average speed in km/h.

	Time
Leaves	09:40
Arrives	11:10

$$1 \text{ hour } 30 \text{ minutes} = 1.5 \text{ hours}, 117 \div 1.5$$

Answer 78 km/h

14



A coach travels at 64 km/h for 2 hours 15 minutes. How far does it travel?

$$15 \text{ minutes} = 0.25 \text{ hours}, 64 \times 2.25$$

Answer 144 km

15



Leah leaves home at 08:15.
She cycles 18 km to work at 12 km/h.
What time does she arrive?

$$18 \div 12 = 1.5 \text{ hours}, 08:15 + 1 \text{ hour } 30 \text{ minutes}$$

Answer 09:45

16



Omar drives 60 km at 60 km/h, then another 60 km at 40 km/h.
He says his average speed for the whole journey is 50 km/h.
Is he right? Explain.



$$1 \text{ hour} + 1.5 \text{ hours} = 2.5 \text{ hours}, 120 \div 2.5 = 48$$

Answer No, it is 48 km/h