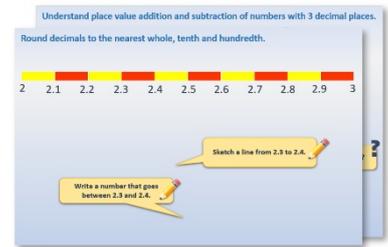


# Week 6, Day 2

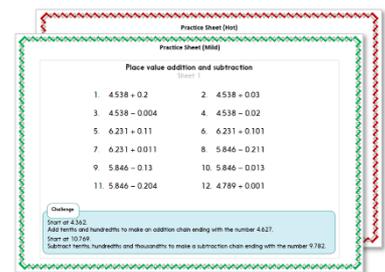
## Kilometres and miles

Each day covers one maths topic. It should take you about 1 hour or just a little more.

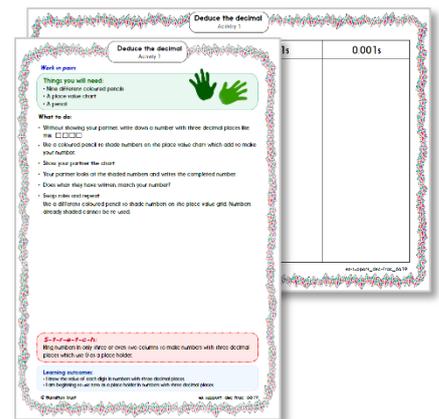
1. Start by reading through the **Learning Reminders**. They come from our *PowerPoint* slides.



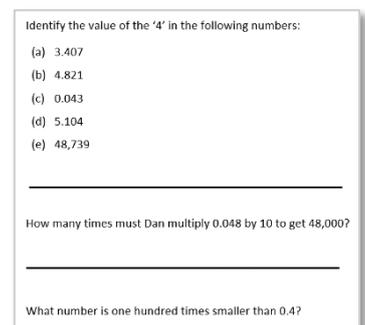
2. Tackle the questions on the **Practice Sheet**. There might be a choice of either **Mild** (easier) or **Hot** (harder)! Check the answers.



3. Finding it tricky? That's OK... have a go with a grown-up at **A Bit Stuck?**



4. Have I mastered the topic? A few questions to **Check your understanding**. Fold the page to hide the answers!



## Learning Reminders

Convert between metres and kilometres.

Write these distances  
in metres.

2km

2000m

24km

24,000m

0.6km

600m

1.5km

?

1.345km

1345m

0.25km

?

## Learning Reminders

Know approximate conversion between miles and km; Draw a line graph and read intermediate points.

Distances on signs in the UK are shown in miles. Do you know of any countries where distances are shown in kilometres - countries where you have holidayed or where relatives live?



A mile is longer than a kilometre, and a good approximate rule to convert from miles to kilometres or vice versa is to remember that 5 miles is approximately 8 km.

So how many kilometres is the same as 10 miles? 15 miles? 20 miles?

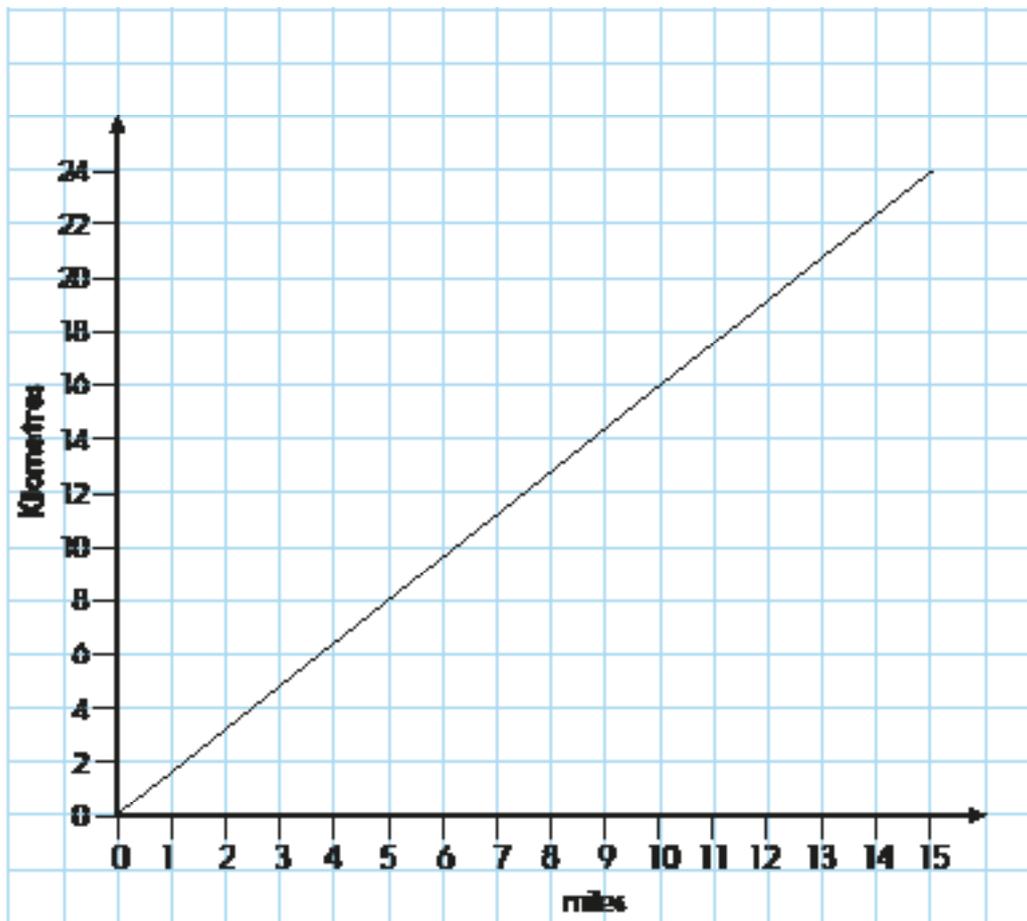


Miles	Kilometres
0	0
5	8
10	16
15	
20	

We could use the ratio to write more facts in this table. We can find more distances very quickly if we draw a line graph...

## Practice Sheet Mild

### Converting between miles and kilometres



Use the graph to convert the following distances to the nearest kilometre.

1. 5 miles
2. 7.5 miles
3. 6 miles
4. 15 miles

Use the graph to convert the following distances to the nearest mile.

5. 4km
6. 16km
7. 19km
8. 21km

#### Challenge

Use your answers to estimate how many kilometres are equivalent to:

1. 30 miles
2. 20 miles
3. 25 miles
4. 100 miles
5. 1 mile (to 1 decimal place)

## Practice Sheet Hot

### Converting between miles and kilometres

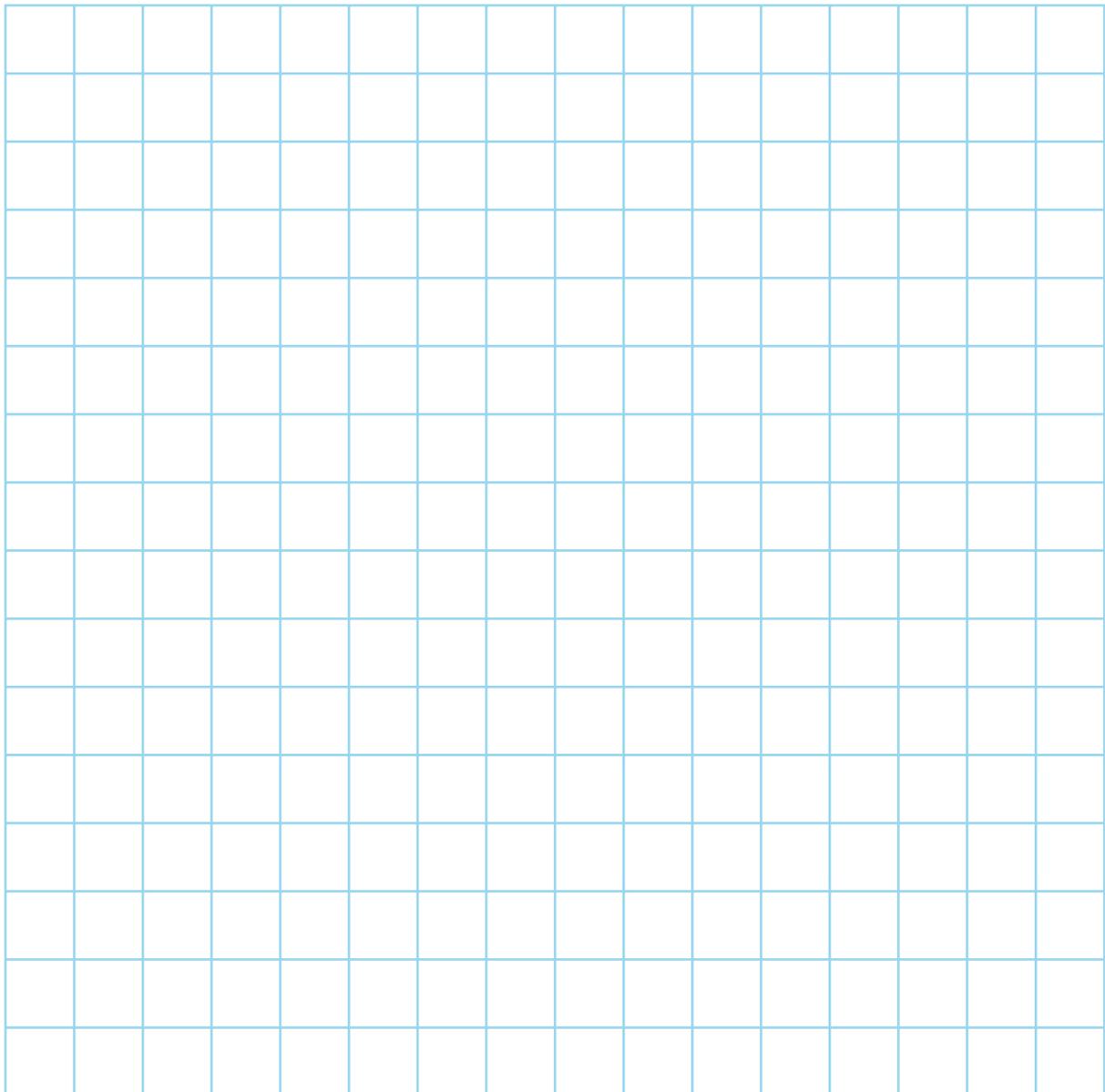
These are five of the UK's long distance footpaths:

- The Ridgeway - 86 miles
- Pennine Way - 431 kilometres
- Glyndwrs Way - 135 miles
- Cape Wrath Trail - 378 kilometres
- The Ulster Way - 665 miles



Draw a graph to help you convert these distances from miles to kilometres and vice versa.

How will you label the x- and y-axes to allow for these large numbers?



# Practice Sheets Answers

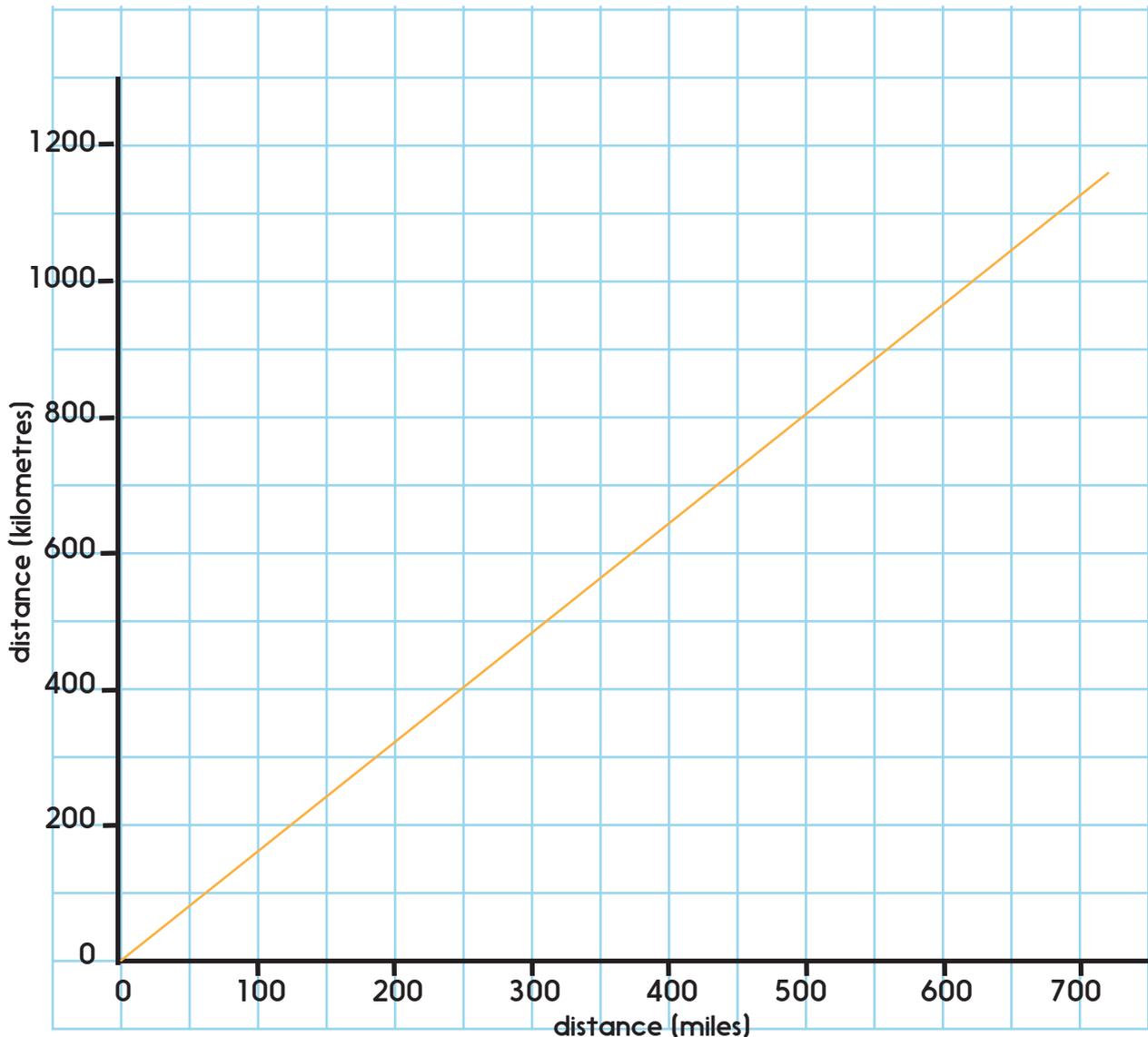
## Converting between miles and kilometres (mild)

- |    |       |    |          |
|----|-------|----|----------|
| 1. | 8 km  | 5. | 2 miles  |
| 2. | 12 km | 6. | 10 miles |
| 3. | 10 km | 7. | 12 miles |
| 4. | 24 km | 8. | 13 miles |

### Challenge

- |    |       |    |         |
|----|-------|----|---------|
| 1. | 48 km | 4. | 1600 km |
| 2. | 32 km | 5. | 1.6 km  |
| 3. | 40 km |    |         |

## Converting between miles and kilometres (hot)

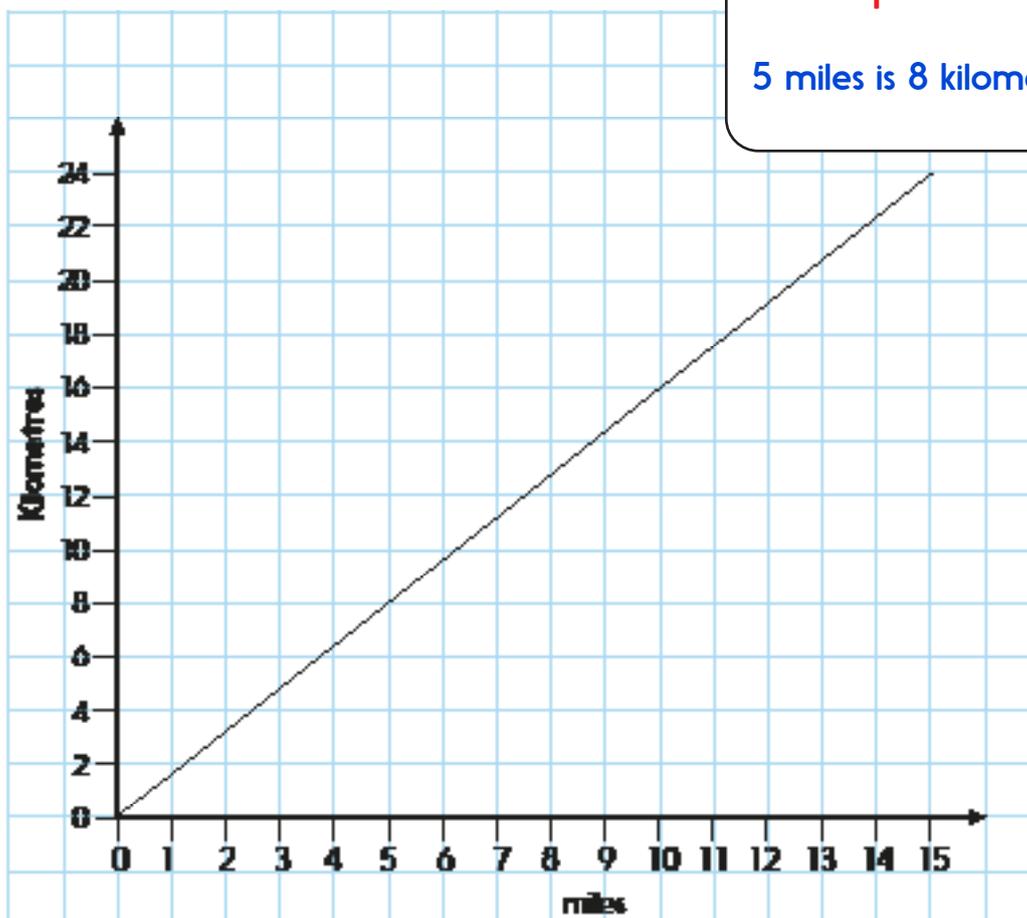


## A Bit Stuck?

### Distances from home

**Helpful Hint!**

5 miles is 8 kilometres



Use an online mapping tool (e.g. Google maps) to find at least 6 places less than 15 miles away from your home.

Use the graph to estimate those distance in kilometres, then change the units of measurement in the online mapping tool to check.

Build up a table like this:

Place	Distance (miles)	Estimate (kilometres)	Actual (kilometres)
<i>Dunsford</i>	<i>15 miles</i>	<i>about 25 kilometres</i>	<i>24.1 kilometres</i>
<i>Moreton</i>	<i>8 miles</i>		

...

Can you use some results to work out others?

## Check your understanding Questions

Use this fact: 5 miles = 8Km

- 50 miles is  km
- miles is 4 km
- 32 km is  miles
- 15 miles is  km
- miles is 40 km
- 64 km is  miles

Roughly how many miles is 250 km?

*Fold here to hide answers*

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## Check your understanding Answers

Use this fact: 5 miles = 8Km

- 50 miles is 80km
- 2.5 (or  $2\frac{1}{2}$ ) miles is 4 km
- 32 km is 20 miles
- 15 miles is 24 km
- 25 miles is 40 km
- 64 km is 40 miles

Roughly how many miles is 250 km? 155 miles.