

Reasoning and Problem Solving

Step 4: Miles and Kilometres

All conversions in this resource are based on 5 miles \approx 8 kilometres.

National Curriculum Objectives:

Mathematics Year 6: (6M6) [Convert between miles and kilometres](#)

Differentiation:

Questions 1, 4 and 7 (Problem Solving)

Developing Calculate a total distance and convert from miles into kilometres. All miles are multiples of 5.

Expected Calculate a total distance and convert from miles into kilometres. All miles use numbers with up to 1 decimal place (0.5).

Greater Depth Calculate a total distance and convert from miles into kilometres. All miles use numbers with up to 2 decimal places (0.25, 0.75).

Questions 2, 5 and 8 (Reasoning)

Developing Explain whether a statement is correct or not. All miles are multiples of 5 or kilometres are multiples of 8.

Expected Explain whether a statement is correct or not. Using numbers with up to 1 decimal place (0.5).

Greater Depth Explain whether a statement is correct or not. Using numbers with up to 2 decimal places (0.25, 0.75), and fractions and percentages of miles and kilometres.

Questions 3, 6 and 9 (Problem Solving)

Developing Calculate a missing distance. All miles are multiples of 5 or kilometres are multiples of 8.

Expected Calculate a missing distance. Using numbers with up to 1 decimal place (0.5).

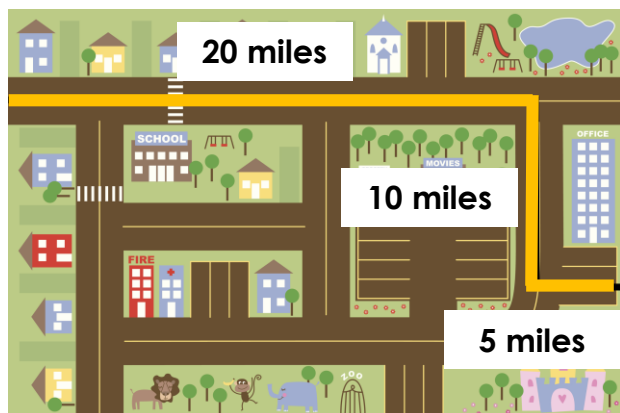
Greater Depth Calculate a missing distance. Using numbers with up to 2 decimal places (0.25, 0.75), and fractions and percentages of miles and kilometres.

More [Year 6 Converting Units](#) resources.

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Miles and Kilometres

1a. Sam has planned his walk on a map.



How far is his walk in kilometres?



PS

Miles and Kilometres

1b. Jess has planned her trip on a map.



How far is her trip in kilometres?



PS

2a. Lucy says,



64km is equivalent
to 35 miles.

Is she correct? Explain your answer.



R

2b. Zane says,



50 miles is
equivalent to 88km

Is he correct? Explain your answer.



R

3a. Iqra is planning a cycling trip.

She wants to arrive in Windemere, which
is 45 miles from her starting point, by 6pm.

She has travelled 56km by 2pm.

How many miles does she have left?



PS

3b. Freddie is planning his journey.

He wants to arrive at his destination,
which is 20 miles from his starting point,
by 4.30pm.

He has travelled 24km by 2.30pm.

How many miles does he have left?

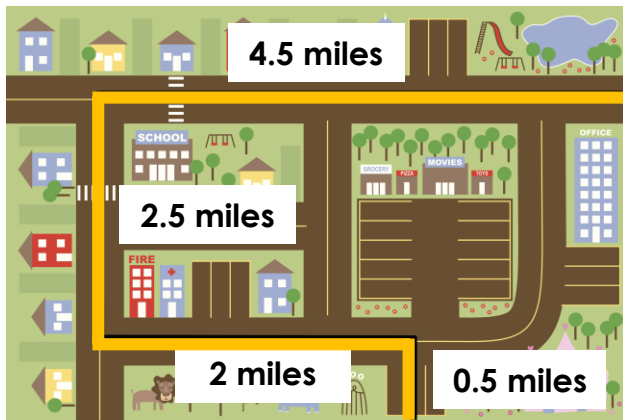


PS

Miles and Kilometres

Miles and Kilometres

4a. Eesa has planned his run on a map.



How far is his run in kilometres?



PS

4b. Isla has planned her cycle on a map.



How far is her cycle in kilometres?



PS

5a. Millie says,



7.2km is equivalent to 4 miles.

Is she correct? Explain your answer.



R

5b. Jaiden says,



2.5 miles is equivalent to 0.8km

Is he correct? Explain your answer.



R

6a. Ivy is planning a road trip.

She wants to arrive in Paris, which is 500 miles from her starting point, by day 4.

She has travelled 640km by day 3.

How many miles does she have left?



PS

6b. Max is planning his walk home.

He wants to arrive at home, which is 4.5 miles from his starting point, by 4pm.

He has travelled 4.8km by 2.30pm.

How many miles does he have left?

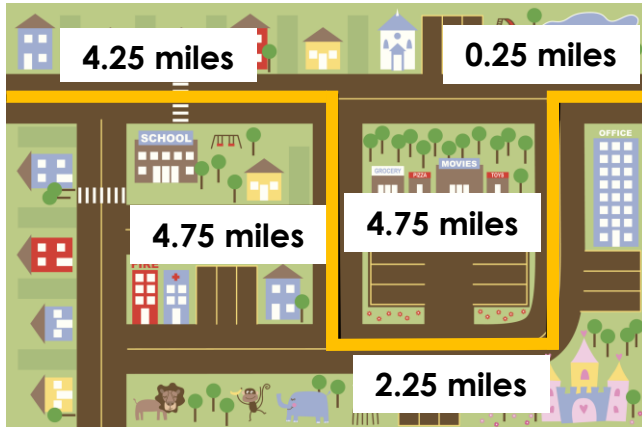


PS

Miles and Kilometres

Miles and Kilometres

7a. Jack has planned his route on a map.



How far is his route in kilometres?



PS

7b. Pippa has planned her way home on a map.



How far is her journey in kilometres?



PS

8a. Ruby says,



Half a mile is equivalent to three fifths of a km.

Is she correct? Explain your answer.



R

8b. Isaac says,



75% of 10 miles is equivalent to 16km.

Is he correct? Explain your answer.



R

9a. Poppy is planning a walk.

She wants to arrive in at the campsite, which is 19 miles from her starting point, by 7pm.

She has travelled 22.4km by 4pm.

How many miles does she have left?



PS

9b. Felix is planning a road trip.

He wants to arrive in Barcelona, which is 450 miles from his starting point, by day 3.

He travelled 160km on day 1, and 80 miles on day 2.

How many miles does he have left?



PS

Reasoning and Problem Solving Miles and Kilometres

Developing

- 1a. 56km
2a. She is not correct. 64km is equivalent to 40 miles.
3a. 10 miles

Expected

- 4a. 15.2km
5a. She is not correct. 7.2km is equivalent to 4.5 miles
6a. 100 miles.

Greater Depth

- 7a. 26km
8a. She is not correct. Half a mile is equivalent to four fifths of a km or 0.8km.
9a. 5 miles

Reasoning and Problem Solving Miles and Kilometres

Developing

- 1b. 120km
2b. He is not correct. 50 miles is equivalent to 80km.
3b. 5 miles

Expected

- 4b. 29.6km
5b. He is not correct. 2.5 miles is equivalent to 4km.
6b. 1.5 miles

Greater Depth

- 7b. 46.4km
8b. He is not correct. 75% of 10 miles is 7.5 miles which is equivalent to 12km
9b. 270 miles