## Maths Mastery

Convert Between Miles and Kilometres

## Miles to Kilometres

5 miles is equal to 8km. (Actually its 8.04672km.) Other approximate ratios are: 2 miles = 3km or 3 miles = 5km

Explore how accurate these estimates are. Share your ideas with a partner.

Use these approximations to estimate the following conversions.

Ratio	30 miles	
5 miles = 8km	48km	
3 miles = 5km	50km	
2 miles = 3 km	45km	

Compare your answers with a partner.
Try using these estimations to convert miles into kilometres.

Mileage	Ratio Used	Kilometres
2000	2:3	3000km
	5:8	3200km
3033	3:5	5055km
	5:8	4852.8km
6400	2:3	9600km
	5:8	10 240km
13 000	2:3 (nearest 10 000km)	20 000km
	3:5 (nearest 10 000km)	20 000km
	5:8 (nearest 10 000km)	20 000km

Hide Answers

## Convert with Decimals

As a further investigation into the use of different ratios to convert between miles and kilometres, use the common ratios 2:3, 3:5 and 5:8 change into decimals and see and see what you notice.

2:3 = 0.66, 3:5 = 0.6 and 5:8 = 0.625.

Try the ratios the other way round.

$$3:2 = 1.5, 5:3 = 1.66, 8:5 = 1.6$$

What would be the closest ratios to 5:8 or 8:5 using other denominators such as 4, 7, 8, 11, 13?

Miles to km: 2:4 = 0.5 or 3:4 = 0.75 (not very accurate), 4:7 = 0.57, 7:11 = 0.64, **8:13 = 0.62** Km to miles: 7:4 = 1.75, 11:7 = 1.57, 13:8 = 1.625, 18:11 = 1.64, **21:13 = 1.62** 



