

Homework/Extension

Kilometres

National Curriculum Objectives:

Mathematics Year 4: (4M5) Convert between different units of measure (for example, kilometre to metre; hour to minute)

Differentiation:

Questions 1, 4 and 7 (Varied Fluency)

Developing Complete the calculations, using conversion between metres and kilometres where some kilometres are represented as halves.

Expected Complete the calculations, using conversion between metres and kilometres where kilometres are represented as wholes, halves and quarters.

Greater Depth Complete the calculations, using conversion between metres and kilometres where kilometres are represented as wholes, halves, quarters and tenths. Some kilometres are represented in words.

Questions 2, 5 and 8 (Varied Fluency)

Developing Order distances by converting between metres/kilometres where some kilometres are represented as wholes and halves.

Expected Order distances by converting between metres/kilometres where kilometres are represented as wholes, halves and quarters.

Greater Depth Order distances by converting between metres/kilometres where kilometres are represented as wholes, halves, quarters and tenths. Some kilometres are represented in words.

Questions 3, 6 and 9 (Reasoning and Problem Solving)

Developing Explain whether a given statement is correct using conversion between metres/kilometres where kilometres are represented as wholes and halves.

Expected Explain whether a given statement is correct using conversion between metres/kilometres where kilometres are represented as wholes and quarters.

Greater Depth Explain whether a given statement is correct using conversion between metres/kilometres where kilometres are represented as wholes, halves, quarters and tenths. Some kilometres are represented in words.

Kilometres

1. Complete the following calculations. Don't forget to use a unit of measurement in the answer!

A. $7\text{km} + 2,000\text{m} =$

B. $3,500\text{m} + 3\text{km} =$

C. $5,000\text{m} - 3\frac{1}{2}\text{km} =$



VF
HW/Ext

2. Four children swam for an hour. The results of how far they swam are shown in the table below.

James	$1\frac{1}{2}\text{km}$
Aaron	2,500m
Ellie	1km
Charlotte	2km



Order the distances swam from shortest to furthest in metres.

Shortest

Furthest



VF
HW/Ext

3. Harry has taken part in a sponsored bike ride.

He says,



I cycled $\frac{1}{2}$ of a kilometre less than 1,000m. I think I cycled 500 metres.

Is he correct? Explain your answer.



RPS
HW/Ext

Kilometres

4. Complete the following calculations. Don't forget to use a unit of measurement in the answer!

A. $5\text{km} + 6,500\text{m} =$

B. $1,250\text{m} + 5\frac{1}{2}\text{km} + 2,750\text{m} =$

C. $8,000\text{m} - 3\frac{1}{4}\text{km} =$



VF
HW/Ext

5. Four children ran for an hour. The results of how far they ran are shown in the table below.

Hannah	$2\frac{1}{2}\text{ km}$
David	2,200m
Michael	$2\frac{1}{4}\text{ km}$
Sarah	3km



Order the distances run from shortest to furthest in metres.

Shortest

Furthest



VF
HW/Ext

6. Sam has taken part in a charity swim at the local swimming baths.

She says,



I swam $\frac{1}{4}$ of a kilometre less than 3,000m. I think I swam 3,250 metres.

Is she correct? Explain your answer.



RPS
HW/Ext

Kilometres

7. Complete the following calculations. Don't forget to use a unit of measurement in the answer!

A. $3\frac{1}{4}$ km + = 6,500m

B. + $5\frac{4}{10}$ km + 2,900m = Ten kilometres

C. - $3\frac{1}{4}$ km = Two thousand metres



VF
HW/Ext

8. Four children walked for an hour. The results of how far they walked are shown in the table below.

Malcolm	$6\frac{6}{10}$ km
Julie	Six and a half kilometres
Oliver	$6\frac{3}{4}$ km
Ruby	Half of 12km



Order the distances walked from shortest to furthest in metres.

Shortest

Furthest



VF
HW/Ext

9. Joe skated for charity at his local skating rink.

He says,



I skated two tenths of a kilometre more than 2,550m. I think I skated $2\frac{1}{4}$ kilometres.

Is he correct? Explain your answer.



RPS
HW/Ext

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Kilometres

Developing

1. A. 9,000m or 9 km B. 6,500m or $6\frac{1}{2}$ km C. 1,500m or $1\frac{1}{2}$ km
2. 1,000m, 1,500m, 2,000m, 2,500m
3. Harry is correct. $\frac{1}{2}$ of a kilometre is 500m. $1,000\text{m} - 500\text{m} = 500\text{m}$.

Expected

4. A. 11,500m or 11 km B. 9,500m or $9\frac{1}{2}$ km C. 4,750m or $4\frac{3}{4}$ km
5. 2,200m, 2,250m, 2,500m, 3,000m
6. Sam is incorrect. The correct answer should be 2,750m because $\frac{1}{4}\text{ km} = 250\text{m}$ and $3,000\text{m} - 250\text{m} = 2,750\text{m}$.

Greater Depth

7. A. 3,250m or $3\frac{1}{4}$ km B. 1,700m or $1\frac{7}{10}$ km C. 5,250m or $5\frac{1}{4}$ km
8. 6,000m, 6,500m, 6,600m, 6,750m
9. Joe is incorrect. If he had skated two tenths of a kilometre more, he would have skated $2,550\text{m} + 200\text{m} = 2,750\text{m}$ or $2\frac{3}{4}\text{ km}$ because two tenths of a kilometre is 200m.