Magnificent Mountains

I can solve problems involving lengths that include measurements written as decimals.

1) This chart shows some of the tallest mountains in Europe. Convert the measurements given in metres to kilometres, and the measurements given in kilometres to metres.

Mountain	Height (m)	Height (km)
Mont Blanc		4.809km
Mount Etna	3350m	
Mount Elbrus		5.642km
Aiguille du Midi	3842m	
Mount Teide	3718m	

2) Order the mountains from tallest to smallest:

Tallest				Smallest

3) Use your converted measurements to answers these questions:

a) What is the **total** height of Mount Etna and Aiguille du Midi?
Write your answer in kilometres.

_____

b) Find the **difference** between the height of Mount Etna and Mount Elbrus. Write your answer in metres.

_____

c) Aminah almost managed to climb to the top of Mount Elbrus last year, but bad weather forced her to turn back when she had climbed 5340m. How many metres did she **have left** to climb?

_____

★

d) Jeremy took part in a mountain climbing challenge. Over five years, he climbed Mont Blanc, Mount Elbrus and Mount Teide. What is the **total** height he climbed?
Write your answer in metres.

_____

e) This year, Kate has climbed 150m **less than** the **total** height of Mount Teide and Mont Blanc. How far has she climbed this year?
Write your answer in metres.

_____

4) Write your own word problem about the heights of these mountains for a friend to solve. Can you challenge yourself and write a two-step problem?

_____

_____

_____

Magnificent Mountains **Answers**

Question	Answer
1.	Convert the measurements given in metres to kilometres, and the measurements given in kilometres to metres.

Mountain	Height (m)	Height (km)
Mont Blanc	*4809m*	4.809km
Mount Etna	3350m	*3.35km*
Mount Elbrus	*5642m*	5.642km
Aiguille du Midi	3842m	*3.842km*
Mount Teide	3718m	*3.718km*

Question	Answer
2.	Order the mountains from tallest to smallest:

Tallest ←————————————→ **Smallest**

Elbrus	*Mont Blanc*	*Aiguille du Midi*	*Teide*	*Etna*

Question	Answer
3.	Use your converted measurements to answers these questions:
a	**7.192km**
b	**2292m**
c	**302m**
d	**14169km**
e	**8377m**
4.	Write your own word problem about the heights of these mountains for a friend to solve. Can you challenge yourself and write a two-step problem?
	Accept appropriate questions that children have written.

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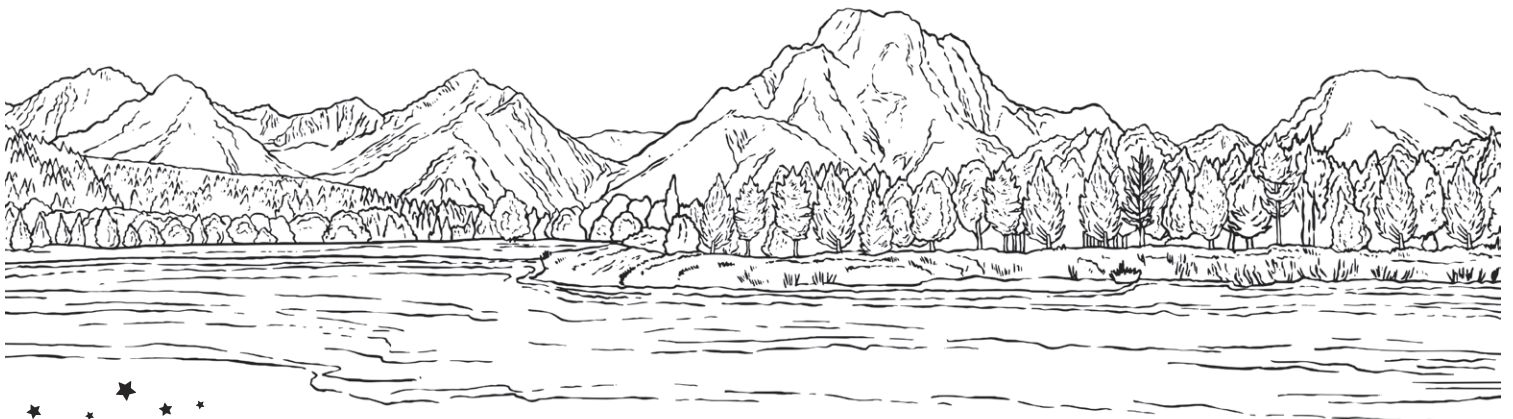
1) This chart shows some of the tallest mountains in Europe.
Some of the measurements are written in metres and some are written in kilometres.

Mountain	Height (m or km)
Mont Blanc	4809m
The Matterhorn	4478m
Mount Etna	3.35km
Grossglockner	3.798km
Mount Elbrus	5642m
Monte Rosa	4.634km
Aiguille du Midi	3.842km
Mount Teide	3718m

Write the name of a mountain in each space to make the statement correct.
There are several correct ways of doing this.

The Matterhorn   >   _____   >   _____

_____   <   Mont Blanc   >   _____

_____   >   _____   <   _____

_____   <   _____   <   _____

2) This table shows the heights of the tallest mountains on each continent in the world. Some of the measurements are missing.

Mountain	Height (m)	Height (km)
Mount Everest (Asia)		8.848km
Kilimanjaro (Africa)	5895m	
Denali (North America)	6068m	
Mount Elbrus (Europe)		5.642km
Aconcagua (South America)	6960m	
Mount Kosciuszko (Australia)	2228m	
Vinson Massif (Antarctica)		4.897km

a)   Convert between metres and kilometres to fill in the missing measurements in the table.

b)   Which two mountains have a difference in height of 892m?

_____

c)   Beverly climbed 11 076m. Which two mountains did she climb?

_____

d)   What is the smallest number of continents I would need to visit to climb 15 000m?

_____

e)   On my around the world trip, I visited three continents and climbed 16 434m.
One of the continents I visited was Africa. Which other two continents did I visit?

_____

3)   Write your own word problem about the heights of these mountains for a friend to solve. Can you challenge yourself and write a two-step problem?

_____

_____

_____

_____

_____

_____

Magnificent Mountains **Answers**

Question	Answer
1.	Write the name of a mountain in each space to make the statement correct. There are several correct ways of doing this.
	There are several combinations of correct answers to this question. Here is a list of mountains in size order from highest to lowest; accept any answers that have completed the inequalities correctly. **Mount Elbrus, Mont Blanc, Monte Rosa, The Matterhorn, Aiguille du Midi, Grossglockner, Mount Teide, Mount Etna**
2.	This table shows the heights of the tallest mountains on each continent in the world. Some of the measurements are missing.

	Mountain	Height (m)	Height (km)
a	Mount Everest (Asia)	*8848m*	8.848km
	Kilimanjaro (Africa)	5895m	*5.895km*
	Denali (North America)	6068m	*6.068km*
	Mount Elbrus (Europe)	*5642m*	5.642km
	Aconcagua (South America)	6960m	*6.96km*
	Mount Kosciuszko (Australia)	2228m	*2.228km*
	Vinson Massif (Antarctica)	*4897m*	4.897km

b	*Denali and Aconcagua.*
c	*Mount Kosciuszko and Mount Everest.*
d	*Two.*
e	*Antarctica (Vinson Massif) and Europe (Mount Elbrus).*
3.	Write your own word problem about the heights of these mountains for a friend to solve. Can you challenge yourself and write a two-step problem?
	Accept appropriate questions that children have written.

Magnificent Mountains

I can solve problems involving lengths that include measurements written as decimals.

1) This chart shows some of the tallest mountains in Europe.
   Some of the measurements are written in metres and some are written in kilometres.

Mountain	Height (m or km)
Mont Blanc	4809m
The Matterhorn	4478m
Mount Etna	3.35km
Grossglockner	3.798km
Mount Elbrus	5642m
Monte Rosa	4.634km
Aiguille du Midi	3.842km
Mount Teide	3718m

Write the name of a mountain in each space to make the statement correct. There are several correct ways of doing this. Can you find four different combinations for each statement? The first one has been done for you.

Mount Elbrus	>	Mount Teide	<	*Monte Rosa*
Grossglockner	>	Mount Teide	<	*Mont Blanc*
Mont Blanc	>	Mount Teide	<	*The Matterhorn*
Monte Rosa	>	Mount Teide	<	*Aiguille du Midi*

Elbrus	>		<	
Elbrus	>		<	
Elbrus	>		<	
Elbrus	>		<	

_____	<	_____	>	Mount Etna
_____	<	_____	>	Mount Etna
_____	<	_____	>	Mount Etna
_____	<	_____	>	Mount Etna

_____	<	_____	>	_____
_____	<	_____	>	_____
_____	<	_____	>	_____
_____	<	_____	>	_____

2) This table shows the heights of the tallest mountains on each continent in the world. Some of the measurements are missing.

Mountain	Height (m)	Height (km)
Mount Everest (Asia)	8848m	*88.48km*
Kilimanjaro (Africa)	5895m	
Denali (North America)	*668m*	6.068km
Mount Elbrus (Europe)		5.642km
Aconcagua (South America)	6960m	
Mount Kosciuszko (Australia)	2228m	
Vinson Massif (Antarctica)		4.897km

a) Kai has had a go at converting the heights of Denali and Mount Everest. Did he work them out correctly? Cross out and correct any mistakes he has made.

b) Convert between metres and kilometres to fill in the other missing measurements in the table.

c) Miriam climbed 27 510m during her charity mountain climbing challenge. Two of the mountains she climbed were Mount Kosciuszko and Vinson Massif.
Which other three mountains did she climb?

_____

d) What is the smallest number of continents I would need to visit to climb 20 000 metres?

_____

e) The answer is 1318m. What could the question be?
Use the information in the table to help you write a question that has this answer.

_____

3) Ashima and Meaghan were trying to decide whether to climb Mount Kilimanjaro or Vinson Massif. If they climbed Mount Kilimanjaro, they would be able to climb at a rate of 800m per day. However, if they climbed Vinson Massif, they would only be able to climb at a rate of 700m per day. Ashima thinks that they would reach the top of Mount Kilimanjaro first, but Meaghan thinks it would be faster to get to the top of Vinson Massif. How long would it take to reach the top of each mountain, and which one of them is right? (Each partial day spent mountain climbing counts as a full day.)

_____

_____

Magnificent Mountains **Answers**

Question	Answer
1.	Write the name of a mountain in each space to make the statement correct. There are several correct ways of doing this.
	There are several combinations of correct answers to this question. Here is a list of mountains in size order from highest to lowest; accept any answers that have completed the inequalities correctly. **Mount Elbrus, Mont Blanc, Monte Rosa, The Matterhorn, Aiguille du Midi, Grossglockner, Mount Teide, Mount Etna**
2.	This table shows the heights of the tallest mountains on each continent in the world.
a	**Children should have corrected the height in metres of Mount Everest to 8.848km and the height in kilometres of Denali to 6068m.**

	Mountain	Height (m)	Height (km)
b	Mount Everest (Asia)	8848m	8.848km
	Kilimanjaro (Africa)	5895m	**5.895km**
	Denali (North America)	6068m	6.068km
	Mount Elbrus (Europe)	**5642m**	5.642km
	Aconcagua (South America)	6960m	**6.96km**
	Mount Kosciuszko (Australia)	2228m	**2.228km**
	Vinson Massif (Antarctica)	**4897m**	4.897km

c	*Mount Everest, Mount Kilimanjaro and Mount Elbrus.*
d	*Three.*
e	**Accept any reasonable questions, related to the information in the table, that give an answer of 1318m. Example answer:** **What is the difference between the heights of Aconcagua and Mount Elbrus?**
3.	How long would it take to reach the top of each mountain, and which one of them is right?
	It would take Ashima and Meaghan eight days to reach the top of Mount Kilimanjaro, but only seven days to reach the top of Vinson Massif. Meaghan was right.