

22.04.24

Number Nest Weekly Challenge



Warm up

- Write down all the factors of 36 **1,2,3,4,6,9,12,18,36**
- 6 is a multiple of 18. True or false? **False**
- Find a number that is a factor of both 18 and 24. **1, 2, 3 or 6.**
- Find two prime numbers that add to make another prime number. e.g. $2 + 5 = 7$
- Round the following numbers to the nearest whole number
 - $1.34 \approx 1$
 - $6.99 \approx 7$
 - $7105.09 \approx 7105$
 - $687.49 \approx 687$
- Round the following numbers to 1 decimal place
 - $1.39 \approx 1.4$
 - $780.01 \approx 780.0$
 - $8641.36 \approx 8641.4$
 - $2.99 \approx 3.0$

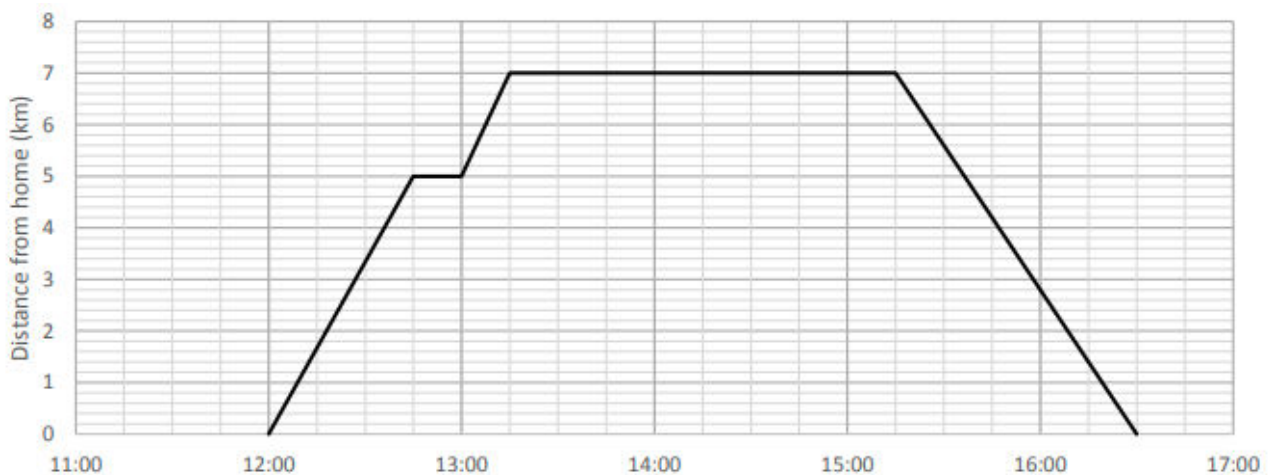
Activity

Zixuan cycled to his friend's house.

He stayed at his friend's house to watch a movie and then started cycling back.

On the way to his friend's house, he stopped at the shops to buy some snacks.

The distance-time graph below shows his journey.



- What time did Zixuan arrive at his friend's house? **13:15**
- How long did Zixuan stop at the shops? **15 mins**
- How far away is Zixuan's friend's house? **7km**

22.04.24

d) How far did Zixuan cycle in total? **14km**

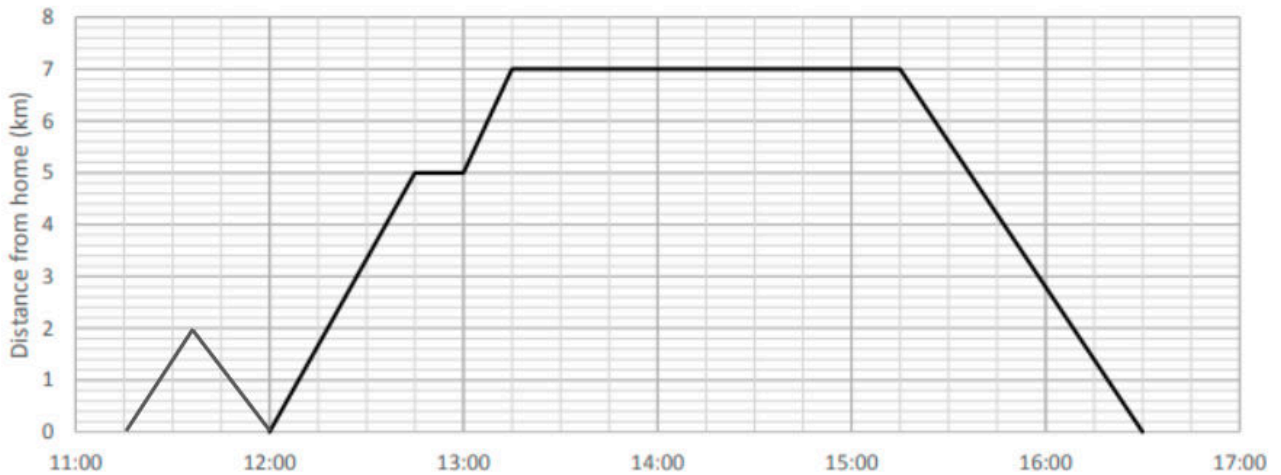
e) How fast did Zixuan travel to get back home after leaving his friend's house?

$$\frac{7}{1.25} = \frac{700}{125} = \underline{5.6\text{km/h}}$$

Hint

$$\text{Speed} = \frac{\text{Distance}}{\text{Time}}$$

Now consider this distance-time graph.



f) What happened at the start of the journey and why? **The person started their journey at 11:15, travelled for about 20 minutes and then came home again. Perhaps they forgot something!**

g) Write your own story to reflect this graph. Remember to think carefully to make sure your story matches the data of the graph.

Jim set off for his football match at 11.15. He travelled 2km and realised he had forgotten his boots, so he had to return home. He then travelled to the football ground. On his way, he stopped and called for his teammate Jeff. Once the match had finished, Jim set off home.

Puzzle

Fill in the squares so that the numbers in each row and column add up to the printed sums on the right and bottom.

3	2	3	0	8
6	3	8	2	19
3	7	9	1	20
7	5	4	7	23
19	17	24	10	

