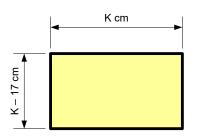


The shape above is constructed from several identical oblongs, one of which is shown below.

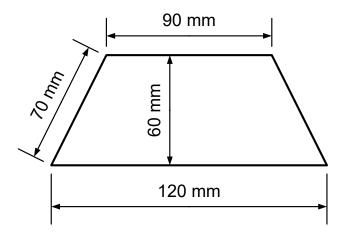


The perimeter of the shape at the top of the page is 348 cm.

a. What is the area of the shape?

b. What is the length of the dotted line?

2. A gold bar is the shape of a prism. A cross section of the gold bar is shown below.



Gold has a density of 19.3 gcm<sup>-3</sup>. The bar is 22 cm long.

Gold is currently priced at £ 27,710.10 per kilogram.

a. How much does the bar weigh?

b. How much would it cost?

3. Fred started a race at 9:35am and completed the 26 mile run at 12:15pm.

Freya started half an hour later than Fred, but finished at the same time.

How much faster was Freya than Fred?