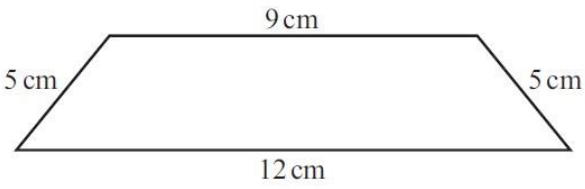
BOUNDS-SET-1

1	In 2005 there were 9 million bicycles in Beijing, correct to the nearest million. The average distance travelled by each bicycle in one day was 6.5 km correct to one decimal place. Work out the upper bound for the **total** distance travelled by all the bicycles in one day. *Answer* ..... km [2]
2	A fence is made from 32 identical pieces of wood, each of length 2 metres correct to the nearest centimetre. Calculate the lower bound for the total length of the wood used to make this fence. Write down your full calculator display. *Answer* ..... m [3]

3	Ashraf takes 1500 steps to walk d **metres** from his home to the station. Each step is 90 centimetres correct to the nearest 10 cm. Find the lower bound and the upper bound for d. *Answer* ..... $\leqslant d <$ ..... [3]
4	Helen measures a rectangular sheet of paper as 197 mm by 210 mm, each correct to the nearest millimetre. Calculate the upper bound for the perimeter of the sheet of paper. *Answer* ..... mm [2]
5	The sides of a rectangle are 6.3 cm and 4.8 cm, each correct to 1 decimal place. Calculate the upper bound for the area of the rectangle. *Answer* ..... cm^2 [2]

6	 NOT TO SCALE The diagram shows a quadrilateral. The lengths of the sides are given to the nearest centimetre. Calculate the upper bound of the perimeter of the quadrilateral. *Answer* ..... cm [2]
7	An equilateral triangle has sides of length 16.1 cm, correct to the nearest millimetre. Find the lower and upper bounds of the perimeter of the triangle. *Answer* Lower bound = ... cm Upper bound = ... cm [2]

8	Joe measures the side of a square correct to 1 decimal place. He calculates the **upper** bound for the area of the square as 37.8225 cm^2. Work out Joe's measurement for the side of the square. *Answer* ..... cm [2]
9	A rectangle has length 127.3 cm and width 86.5 cm, both correct to 1 decimal place. Calculate the upper bound and the lower bound for the perimeter of the rectangle. *Answer* Upper bound = ... cm Lower bound = ... cm [3]

10	Rice is sold in 75 gram packs and 120 gram packs. The masses of both packs are given correct to the nearest gram. Calculate the lower bound for the difference in mass between the two packs. *Answer* ..... g [2]
11	One year ago Ahmed's height was 114 cm. Today his height is 120 cm. Both measurements are correct to the nearest centimetre. Work out the upper bound for the increase in Ahmed's height. *Answer* ..... cm [2]