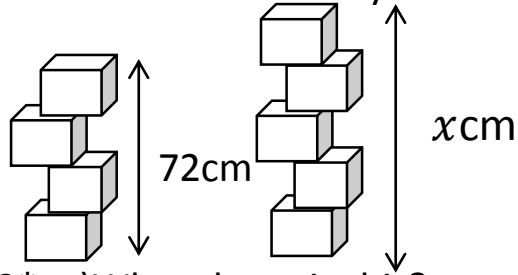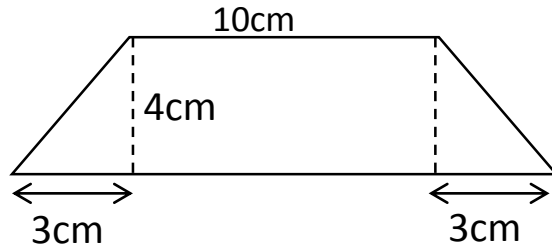1*. Adam builds a tower, which is 72cm tall using 4 cubes. Corey built a tower using 5 cubes. How tall is Corey's tower?

72cm

$x$cm

2*)It takes Jamie 40 minutes to cycle 10 miles. How long does it take him to cycle 20 miles?

3*. a)What shape is this?
b) Find the perimeter of this shape?

10cm

4cm

3cm

3cm

4*) There are two planets in a solar system miles away. They are currently in line. It takes 9 years for planet a to circle the sun and 12 years for planet b. How long will it take for the planets to line up again?

5. What is the term to term rule of these sequences.
   a. 7, 12, 17, 22, …
   b. 3, 5, 7, 9, …
   c. 6, 10, 14, 18, …

   d. Can you find the nth term rule of the above sequences.

6. 6. Work out the following

a) $\frac{5}{7} - \frac{2}{7} =$

b) $\frac{2}{5} + \frac{3}{10} =$

c) $\frac{2}{7} \times \frac{3}{5} =$

d) $\frac{6}{11} \div \frac{4}{5} =$

7. What are the possible values of y if

a) $9 < y \leq 15$

b) $-4 \leq y < 2$