Perimeter: the total distance around the outside of a shape
(1)


What is the perimeter of a rectangle with length 9 cm and width 4 cm ?
(2)


The shape above is made of 3 rectangles, each measuring 3 cm by 1 cm . What is the perimeter of the shape?
(3) BONUS QUESTION: In the first triangle below, each side has length 9 cm . What is the perimeter of each of the shapes below? What happens to the perimeter if we keep making more shapes in the same way?




# Contest Strategy: Try all the answers to see which one is right. 

Faruq subtracted 5 from a number and then divided by 4 . Next, he subtracted 4 from the original number and then divided by 5 . He got the same final answer both times. The original number was
a. 4
b. 5
c. 9
d. 20
e. 7
f. 18
g. 10
(5)

The product of 3 whole numbers is 60 . The numbers are all different and greater than 1 . The sum of the 3 numbers is 13 . Which set of numbers satisfies the conditions?
a. $(2,3,10)$
b. $(2,5,6)$
c. $(3,4.5)$
d. $(2,4,7)$
e. $(2,3,8)$
f. $(3,4,6)$

$$
\begin{aligned}
& \text { hint: } \text { SUM = what you get } \\
& \text { when you add numbers } \\
& \text { PRODUCT = what you get } \\
& \text { When you multiply } \\
& \text { numbers }
\end{aligned}
$$

g. None of the other sets

John loves spaghetti. He wonders how long a string of all the spaghetti on his plate would be if they were placed end to end in a straight line. At first he measures the weight of the empty plate to be 420 gram. Then he puts cooked spaghetti on the plate with a total length of 5 m increasing the weight to 450 gram. After adding the whole portion of spaghetti that he wants to eat, the plate and spaghetti weigh 750 gram.

What is the length of all spaghetti on his plate lined up?

