All these problems appeared on a Pascal Contests, for grade 9 students created by the Centre for Education in Mathematics and Computing at the University of Waterloo. For more contests and other resources visit their website: http://cemc.uwaterloo.ca

What number should go in the \_\_\_\_ to make the equation  $\frac{3}{4} + \frac{4}{} = 1$  true?

Strips are made up of identical copies of \_\_\_\_\_ . Each \_\_\_\_ has length  $\frac{2}{3}$  . Which strip has length 4?

(A) \_\_\_\_\_ (B) \_\_\_\_ (C) \_\_\_\_

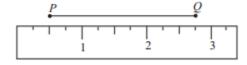
Are there any answers you could eliminate? Explain.

(D)

Erin walks  $\frac{3}{5}$  of the way home in 30 minutes. If she continues to walk at the same rate, how many minutes will it take her to walk the rest of the way home?

Sam rolls a fair four-sided die containing the numbers 1, 2, 3, and 4. Tyler rolls a fair six-sided die containing the numbers 1, 2, 3, 4, 5, and 6. What is the probability that Sam rolls a larger number than Tyler?

According to the ruler shown, what is the length of PQ?



On the number line, points M and N divide LP into three equal parts. What is the value at M?