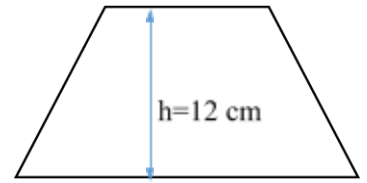
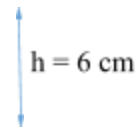


7/8th Grade Math Olympiad Problems

- What is the slope of the line that passes through the points (2,0) and (1,5).
a) 2015 b) 1/5 c) -1/5 d) -5
- Solve for a : $a + 6 - 2 \times 6 + 4 - 8 + 3 \times 2 = 0$
a) 4 b) 22 c) 50 d) 6
- What is the sum of the next two terms in the sequence: 2, 3, 6, 7, 14, 15, 30...?
a) 63 b) 121 c) 93 d) 2015
- A survey of 26 middle-school students revealed that 14 students like zombie movies, 10 students like vampire movies, and 5 students like giant mutant lizard movies. Four students like zombie and vampire movies, 3 students like giant mutant lizard and zombie movies, and one student likes vampire and giant mutant lizard movies. If no students like all three types of movies, how many students like *none* of these types of movies?
a) 7 b) 10 c) 13 d) 5
- Solve for w : $\frac{2}{3} w - \frac{1}{2} = w + \frac{7}{6}$
a) 1/3 b) 5 c) -3 d) -5
- Bilbo found a great deal on rings. He bought a ring for 70% of the original price. If he saved \$45, what was the original price?
a) \$150 b) \$ 125 c) \$105 d) \$115
- Trapezoid ABCD is proportional to trapezoid EFGH. The height of trapezoid ABCD is 6 cm. The length of line DC is twice the height of trapezoid ABCD, and four times the length of AB. What is the area of trapezoid EFGH, in cm^2 ?
a) 144 b) 180

c) 45

d) 90



8. Find the sum of all the prime numbers between 20 and 40.

- a) 91 b) 152 c) 147 d) 120

9. Wallace and Gromit work together to build 3-legged stools and 4-legged tables. They use the same legs for both stools and tables. Last week, they needed 67 legs, and they built 6 more stools than tables. How many stools did Wallace and Gromit make last week?

- a) 10 b) 7 c) 13 d) 6

10. The comic book store is having a swap day. If Sheldon can get 2 X-Men comics for every 7 Spiderman, 5 Archies for every 4 X-Men, and 14 Batmans for every 15 Archies, how many Batmans can he get for 6 Spiderman comics?

- a) 2 b) 6 c) 3 d) 5

11. Which choice below has the greatest value?

- a) 0.09 b) 9.35×10^{-2} c) $1/11$ d) 0.092



12. The equation of the line in the graph shown to the right is:

- a) $x = 2y - 4$ b) $y = \frac{1}{5}x + 4$
c) $y = 2x - 4$ d) $\frac{1}{2}y = 2x + 2$

13. What year is it 10 years before the next year that is a perfect square?

- a) 2025 b) 2020
c) 2106 d) 2015

14. Fred has drawn a triangle and labeled the angles P, Q, and R. If angle P is 75 degrees, and angle Q is 4 times angle R, what is the measure of angle R, in degrees.

- a) 70 b) 21 c) 35 d) 84

15. If the length of a rectangle is increased by 10%, and the width is decreased by 10%, what is the effect on the area of the rectangle?

a) decreases by 1%

b) no change

c) increases by 1%

d) increases by 21%