

Adv. Geometry - 7.4 - Special Rt. Δ's

Key

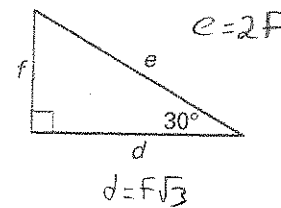
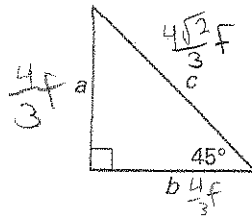
Find the value of each variable. Write your answers in simplest radical form.

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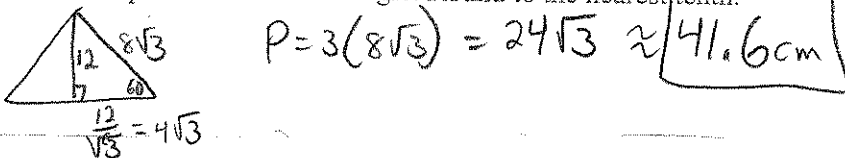
13. Multiple Choice In the diagrams to the right, $a = \frac{4}{3}f$.

Which side length is the longest?

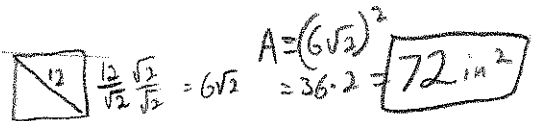
- A. b
 B. c
 C. d
 D. f



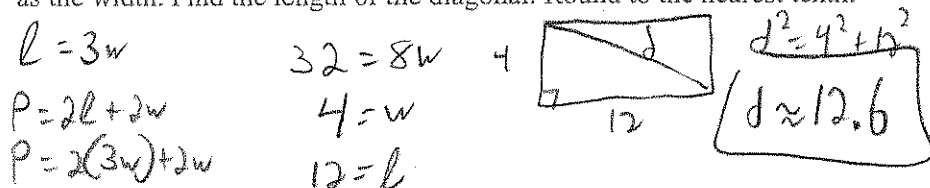
14. Perimeter The altitude of an equilateral triangle is 12 centimeters. Find the perimeter of the triangle. Round to the nearest tenth.



15. Area The diagonal of a square is 12 inches. Find the area. Round to the nearest tenth.



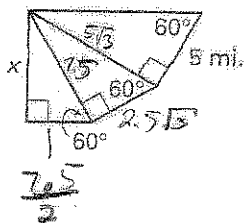
16. Diagonal The perimeter of a rectangle is 32 feet. The length is three times as long as the width. Find the length of the diagonal. Round to the nearest tenth.



18. Distance Each figure to the right is a $30^\circ-60^\circ-90^\circ$ triangle. Find the value of x . Round to the nearest tenth.

$$x = \frac{7.5\sqrt{3}}{2}$$

$$x = 6.5$$



Canyon A symmetrical canyon is 4850 feet deep. A river runs through the canyon at its deepest point. The angle of depression from each side of the canyon to the river is 60° . Round to the nearest tenth.

19. Find the distance across the canyon. $2\left(\frac{4850}{\sqrt{3}}\right) = 5600.3'$

20. Find the length of the canyon wall from the edge to the river. $5600.3'$

21. Is it more or less than a mile across the canyon? (5280 feet = 1 mile) More than a mile

