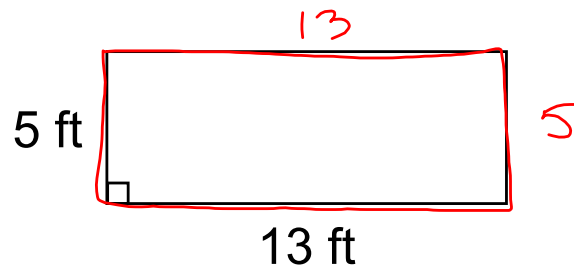


DO NOW

Find the area and perimeter of the rectangle below



$$A = b \cdot h$$

$$P = 5 + 5 + 13 + 13$$

$$A = 5 \cdot 13$$

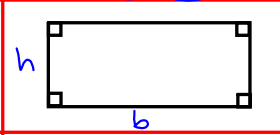
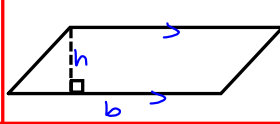
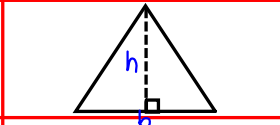
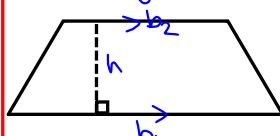
$$P = 36 \text{ ft}$$

$$A = 65 \text{ ft}^2$$

Nov 23-7:07 AM

AREA FORMULAS

The base and height of any polygon are always PERPENDICULAR!!

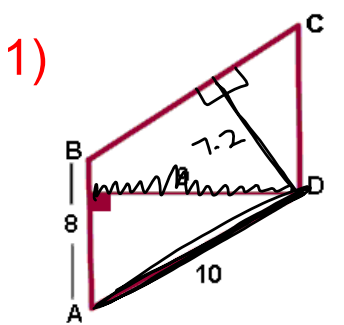
Rectangle	$A = bh$	
Parallelogram	$A = bh$	
Triangle	$A = \frac{1}{2}bh$	
Trapezoid	$A = \frac{1}{2}h(b_1 + b_2)$	

★ Bases of a trapezoid
MUST be parallel ★

Height of trapezoid is
the distance between the
two bases

Nov 23-7:16 AM

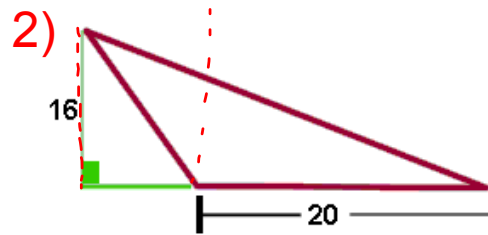
Find the area of each figure



$$A = b \cdot h$$

$$A = (8)(9)$$

$$A = 72$$



$$A = \frac{1}{2} b h$$

$$A = \frac{1}{2} (20)(16)$$

$$A = 160$$

Nov 23-7:30 AM

3) An enclosure has the shape of a trapezoid as shown below.

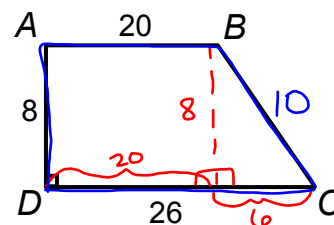
(a) Determine the length of side BC .

$$6^2 + 8^2 = c^2$$

$$\sqrt{100} = \sqrt{c^2}$$

$$10 = c$$

$$BC = 10$$



(b) Determine the perimeter of $ABCD$.

$$P = 20 + 8 + 26 + 10$$

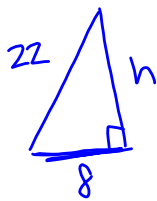
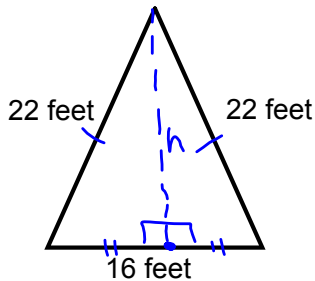
$$P = 64$$

(c) If the enclosure is to be surrounded on all sides by fencing that costs \$0.75 per linear foot, then how much will it cost to enclose this trapezoid?

$$.75(64) = \$48$$

Feb 6-8:11 AM

- 4) A patio is to be made in the shape of an isosceles triangle as shown. If the patio is to be covered by stone that costs \$12.25 per square foot, what will the the total cost of covering the patio with stone?



$$A = \frac{1}{2}bh$$

$$A = \frac{1}{2}(16)(20.4939\dots)$$

$$A = 163.9512\dots \text{ft}^2$$

$$\times 12.25$$

$$\boxed{\$2,008.40}$$

$$8^2 + h^2 = 22^2$$

$$64 + h^2 = 484$$

$$\sqrt{h^2} = \sqrt{420}$$

$$h = 20.4939\dots$$

Feb 6-8:12 AM