

Name Key
7R

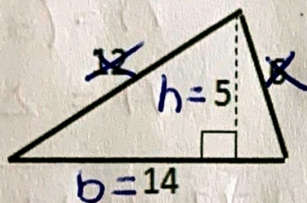
Date _____
Classwork 11.8

Polygons Review

Figure	Formula
Triangle	$A = \frac{1}{2}bh$
Parallelogram	$A = bh$
Circle	$A = \pi r^2$
Trapezoid	$A = \frac{1}{2}h(b_1 + b_2)$

1) Find the area of the following polygons. **Show all work!**

a.

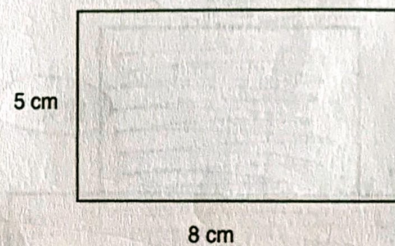


$$A = \frac{1}{2}bh$$

$$A = \frac{1}{2}(14)(5)$$

$$A = 35 \text{ units}^2$$

b.

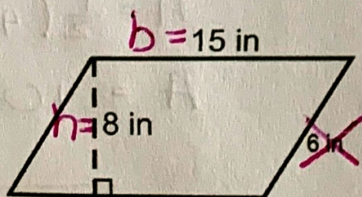


$$A = lw \text{ or } A = bh$$

$$A = (8)(5)$$

$$A = 40 \text{ cm}^2$$

c.

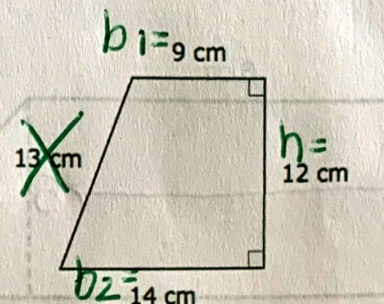


$$A = bh$$

$$A = (15)(8)$$

$$A = 120 \text{ in}^2$$

d.



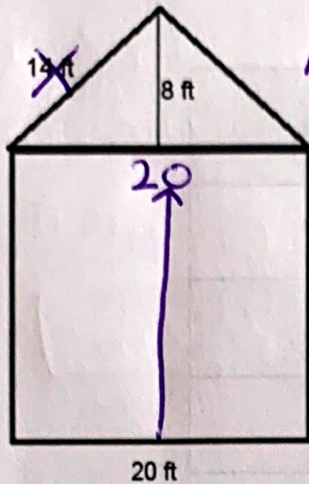
$$A = \frac{1}{2}h(b_1 + b_2)$$

$$A = \frac{1}{2}(12)(9 + 14)$$

$$A = 138 \text{ cm}^2$$

2) Find the area of the following composite figures. **Show all work!**

a.



$$A_{\Delta} + A_{\square}$$

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

$$A = \frac{1}{2}(20)(8)$$

$$A = 80 \text{ ft}^2$$

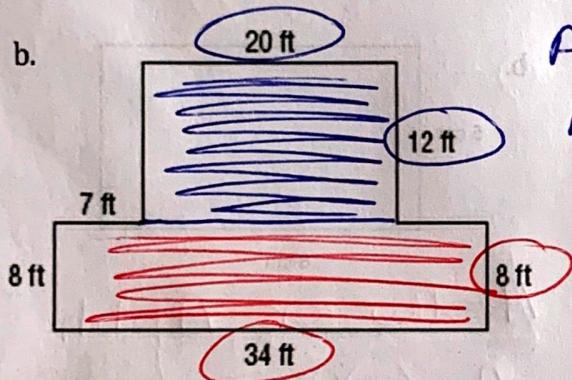
$$A = lw \text{ or } bh$$

$$A = (20)(16)$$

$$A = 320 \text{ ft}^2$$

$$80 + 320 = \boxed{400 \text{ ft}^2}$$

b.



$$A_{\square} = lw \text{ or } bh$$

$$A = (20)(12)$$

$$A = 240 \text{ ft}^2$$

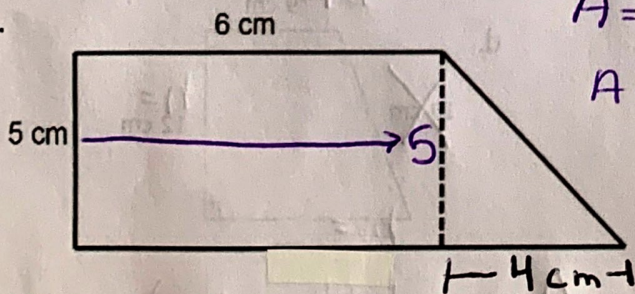
$$+ A_{\square}$$

$$A = (8)(34)$$

$$A = 272 \text{ ft}^2$$

$$240 + 272 = \boxed{512 \text{ ft}^2}$$

c.



$$A_{\square} = lw$$

$$bh$$

$$A = (5)(6)$$

$$A = 30 \text{ cm}^2$$

+

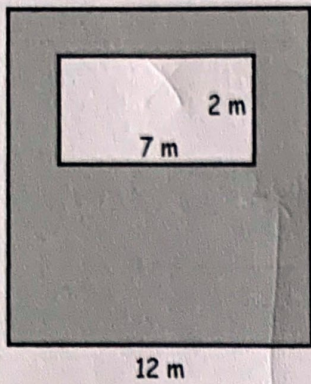
$$A_{\Delta} = \frac{1}{2}bh$$

$$A = \frac{1}{2}(4)(5)$$

$$A = 10 \text{ cm}^2$$

$$30 + 10 = \boxed{40 \text{ cm}^2}$$

3) Find the area of the shaded region in the figure below. **Show all work!**



$$A_{\square} = lw$$

$$bh$$

$$A = (12)(10)$$

$$A = 120 \text{ m}^2$$

$$A_{\square} = lw$$

$$bh$$

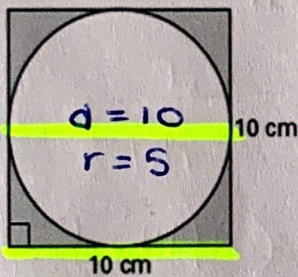
$$A = (7)(2)$$

$$A = 14 \text{ m}^2$$

$$120 - 14$$

$$\boxed{106 \text{ m}^2}$$

4) The circle below is inscribed in a square. Find the area of the shaded region. Use 3.14 for π . **Show all work!**



$$A_{\square} = S^2$$

$$A = (10)^2$$

$$A = 100 \text{ cm}^2$$

$$A = \pi r^2$$

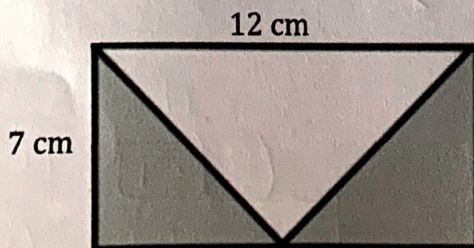
$$A = (3.14)(5)^2$$

$$A = 78.5 \text{ cm}^2$$

$$100 - 78.5$$

$$\boxed{21.5 \text{ cm}^2}$$

5) Find the area of the shaded region in the figure below. **Show all work!**



$$A_{\square} = lw$$

$$bh$$

$$A = (7)(12)$$

$$A = 84 \text{ cm}^2$$

$$A_{\Delta} = \frac{1}{2} bh$$

$$A = \frac{1}{2} (12)(7)$$

$$A = 42 \text{ cm}^2$$

$$84 - 42$$

$$\boxed{42 \text{ cm}^2}$$