

HW KEY

3. The area of a trapezoid is 170 m^2 . If the height is 10 m , and the longer base is 31 m , what is the length of the shorter base? Round your answer to the nearest tenth.

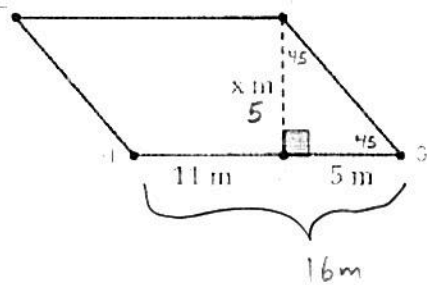
$$A = \frac{1}{2} h (b_1 + b_2)$$

$$170 = \frac{1}{2} (10) (31 + b_2)$$

$$\frac{170}{5} = \frac{5(31 + b_2)}{5}$$

$$\begin{array}{r} 34 = 31 + b_2 \\ -31 \quad -31 \\ \hline \end{array} \quad b_2 = 3 \text{ m}$$

4. Given the area of the parallelogram is 80 m^2 . Find the exact length of \overline{FG} .



$$A = bh$$

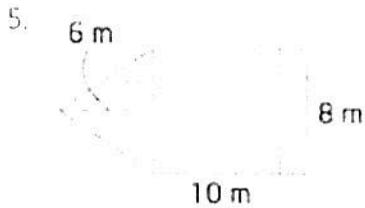
$$\frac{80}{16} = \frac{(16)(h)}{16}$$

$$5 = h$$

$$FG = 5\sqrt{2}$$

$$4.5-4.5-90 \triangle$$

Find the area of the composite figures:



$$A = l \cdot w$$

$$A = 10 \cdot 8$$

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

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

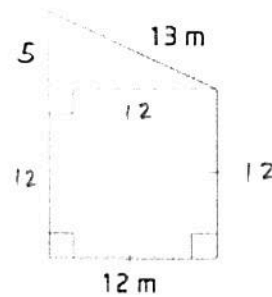
$$A = \frac{1}{2}(8)(6)$$

$$A = 24 \text{ m}^2$$

$$\boxed{104 \text{ m}^2}$$

6. *be careful with the dimensions on this one!*

use \rightarrow
Pythagorean
Theorem



$$A = s^2$$

$$A = 12^2$$

$$A = 144 \text{ m}^2$$

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

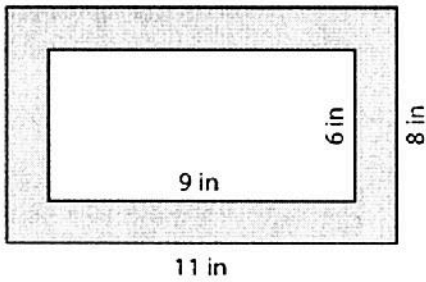
$$A = \frac{1}{2}(5)(12)$$

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

$$\boxed{174 \text{ m}^2}$$

Find the area of the shaded region

7.



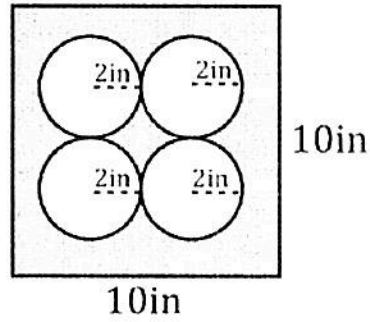
$$A = l \cdot w \quad A = l \cdot w$$

$$A = 11 \cdot 8 \quad A = 9 \cdot 6$$

$$A = 88 \text{ in}^2 \quad A = 54 \text{ in}^2$$

$$88 - 54 = 34 \text{ in}^2$$

8.



$$A = s^2$$

$$A = 10^2$$

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

$$A = \pi r^2$$

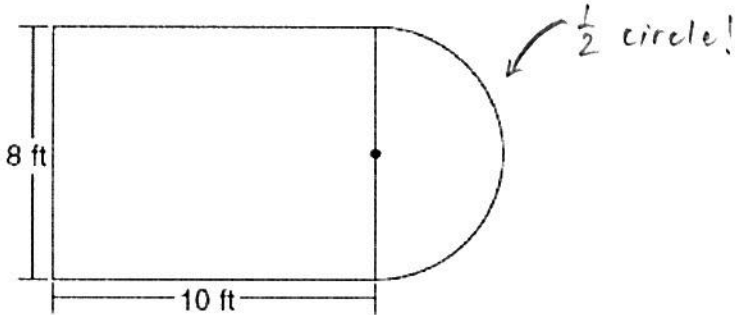
$$A = \pi (2)^2$$

$$A = 4\pi$$

$$4\pi \cdot 4 = 16\pi$$

$$100 - 16\pi \text{ in}^2$$

9. Luis is going to paint a basketball court on his driveway, as shown in the diagram below. This basketball court consists of a rectangle and a semicircle.

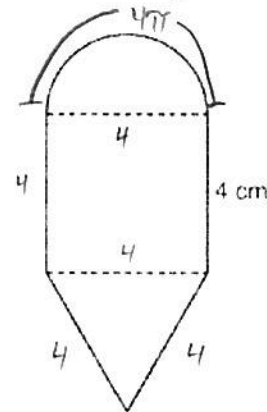


Which expression represents the area of this basketball court, in square feet?

- 1) 80
- 2) $80 + 8\pi$
- 3) $80 + 16\pi$
- 4) $80 + 64\pi$

Went over
in class

10. The diagram below consists of a square with a side of 4 cm, a semicircle on the top, and an equilateral triangle on the bottom. Find the perimeter of the figure to the nearest tenth of a centimeter.



$$C = \pi d$$

$$C = \pi (4)$$

$$C = 4\pi$$

$$16 + 4\pi$$