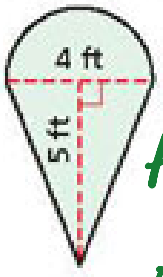
*these are answers only: You must show all work!!

10.3

Pg. 697-699 #3, 6, 10, 13-14, 18-19, 21, 33

(3, 10) Find the shaded area. Round to the nearest tenth, if necessary.

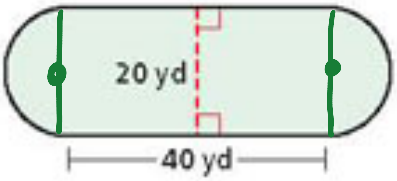
3.



A = Δ + semi circle

$A \approx 16.3 ft^2$

10.



A = rectangle + circle

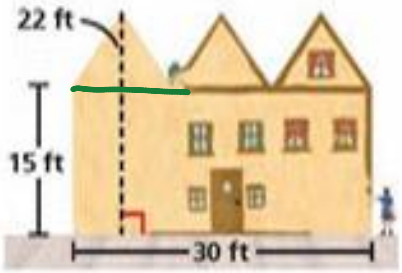
$A \approx 1114.2 yd^2$

6. **Interior Decorating** Barbara is getting carpet installed in her living room and hallway. The cost of installation is $6 per square yard. What is the total cost of installing the carpet?

A = rectangle − stairs (rectangle)

Area * $6 ≈ $270

13. **Drama** Pat is painting a stage backdrop for a play. The paint he is using covers 90 square feet per quart. How many quarts of paint should Pat buy?

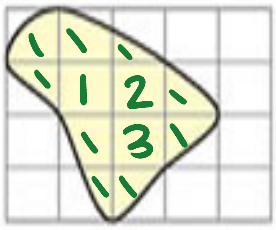


A = rectangle + 3 Δ's

Area * 90 = 7 quarts

#14: Estimate the shaded region. The grid has squares with side lengths of 1 m.

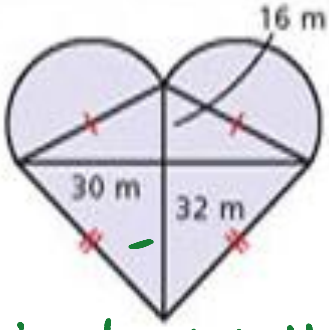
14.



$A \approx 7.5 m^2$

(18-19) Find the area of each figure. Give your answer in terms of π

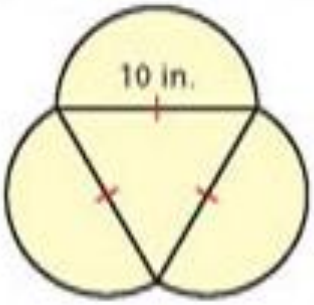
18.



A = circle + kite

$A = (1440 + 289\pi)\ m^2$

19.



$\left(\frac{s^2\sqrt{3}}{4}\right)$

A = equil. Δ + circle + semi circle

$A = \left(25\sqrt{3} + \frac{75\pi}{2}\right) in^2$

21. **Geography** Use the grid on the map of Lake Superior to estimate the area of the surface of the lake. Each square on the grid has a side length of 100 miles.

22. **Critical Thinking** A trapezoid can be divided into a rectangle and two triangles. Show that the area formula for a trapezoid gives the same result as the sum of the areas of the rectangle and triangles.

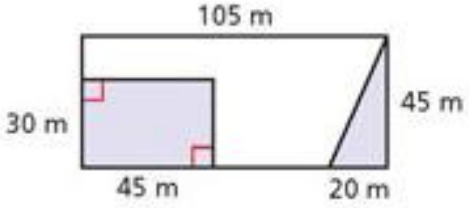
100 × 10,000 × 100

10,000 * 3.5 = 35,000

33. Find the area of the unshaded part of the rectangle.

Ⓐ 1800 m^2 Ⓒ 2925 m^2

Ⓑ 2250 m^2 Ⓓ 4725 m^2



A = Large rect. − shaded rectangle − triangle