


Algebra I

11-5

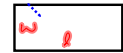
Word Problems

Area Formulas

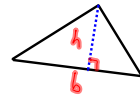
1) square - $A = lw$
or
 $A = s^2$



2) rectangle - $A = lw$

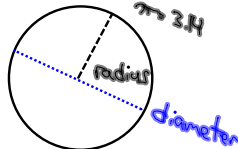


3) triangle - $A = \frac{1}{2}bh$



height - altitude

4) circle - $A = \pi r^2$



$\pi \approx 3.14$

Solve. Round answers to the nearest tenth.

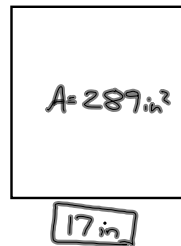
*1) Find the length of a side of a square that has area 289 in^2 .

$$A = s^2$$

$$\sqrt{289} = \sqrt{s^2}$$

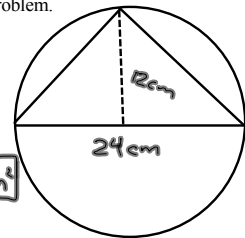
$$17 = |s|$$

$$\pm 17 = s$$



*2) An isosceles triangle is drawn within a circle of radius 12 cm so its vertices touch the circle itself. The base of the triangle is the diameter of the circle.

- a) What does isosceles triangle mean? **2 equal sides**
- b) Draw a picture to represent the problem.



c) Find the area of the circle.

$$A = \pi r^2$$

$$= 3.14(12)^2 = 452.16 \text{ cm}^2$$

b) Find the area of the triangle.

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

$$= \frac{1}{2}(24)(12) = 144 \text{ cm}^2$$

Pg 527
1-8 all, 10