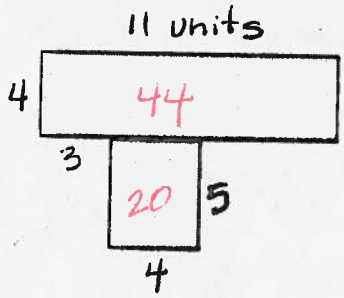
Study Guide Quiz 9.1-9.4

Name Key

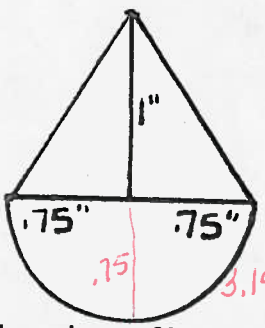
(#1-3) Find the area of the figure:

1.



$44 + 20 = 64 \text{ units}^2$

2.



$.5 * .75 * 1 = .375$

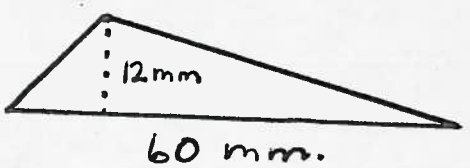
$.375$

$.885$

1.635 in^2

$3.14 * .75^2 = 1.77 \div 2 = .885$

3.



$A = .5 \cdot 12 \cdot 60$

$A = 360 \text{ mm}^2$

4. A triangular roof has an area of 420 square feet. The base of the roof is 42 feet long. What is the height of the roof from the base to the peak?

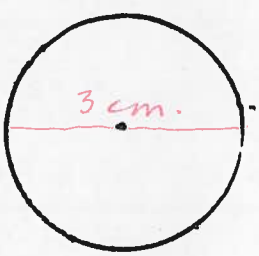
$\frac{1}{2} \cdot 42 \cdot x = 420$

$\frac{21 \cdot x}{21} = \frac{420}{21}$

$x = 20 \text{ ft.}$

5. What is the formula for the circumference of a circle? $C = \pi d$ or $C = 2\pi r$ area of a circle? $A = \pi r^2$

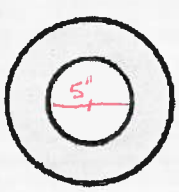
6. Measure the diameter to the nearest centimeter. What is the area of the circle to the nearest square centimeter?



$A = 3.14 * 1.5^2 = 7.065$

$A \approx 7 \text{ cm}^2$

7. The frame of a circular mirror is 2 inches wide. If the outer diameter of the mirror is 9 inches, what is the area of the actual mirror to the nearest square inch?

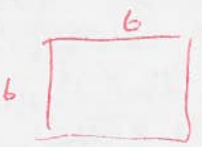


$A = 3.14 * 2.5^2$

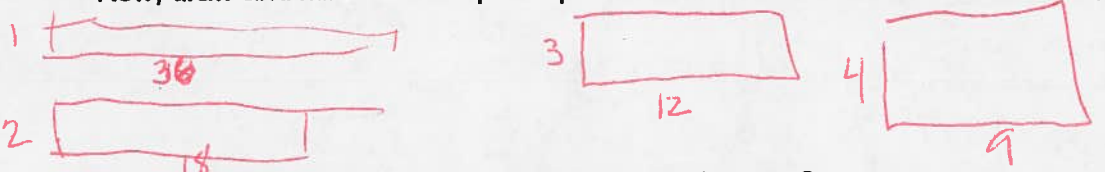
$A = 19.625$

$A \approx 20 \text{ in}^2$

8. Draw and label a square that has an area of 36 sq. units.



Now, draw and label a non-square quadrilateral that also has an area of 36 sq. units.



What is the difference in the quadrilaterals' perimeters?

Square is smallest perimeter