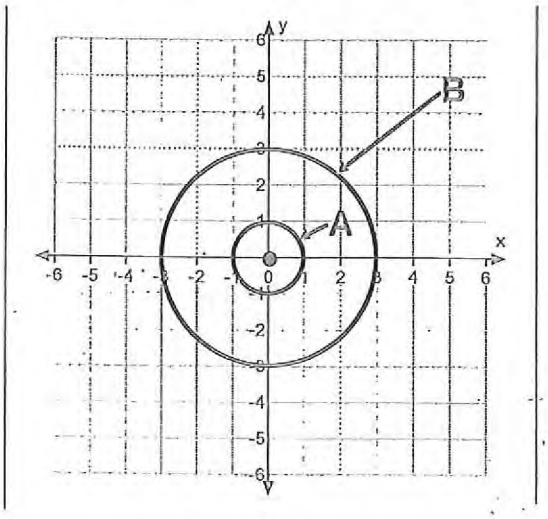
Unit 3 Quiz 2

Name: _____

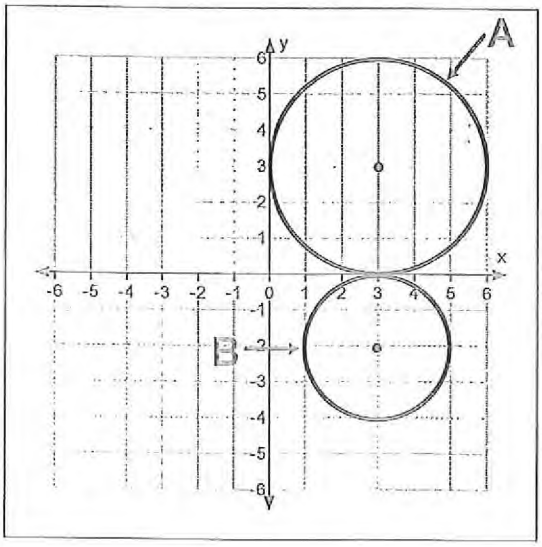
1. Circle M has a circumference of 44.92 feet. What is the area of Circle M? (Show all of your work and round your answer to the nearest tenth.)

2. Circle W has an area of 3318.31 square feet. What is the circumference of Circle W? (Show all of your work and round your answer to the nearest tenth.)

3. Prove that Circle A is similar to Circle B. (Circle A is the original circle.)

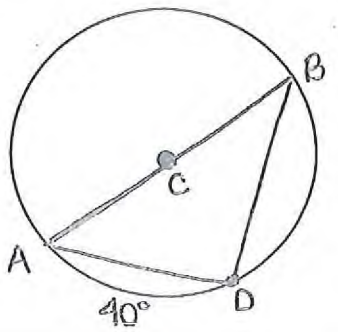


4. Prove that Circle A is similar to Circle B. (Circle A is the original circle.)



For each figure below, find the indicated measure or value.

5.

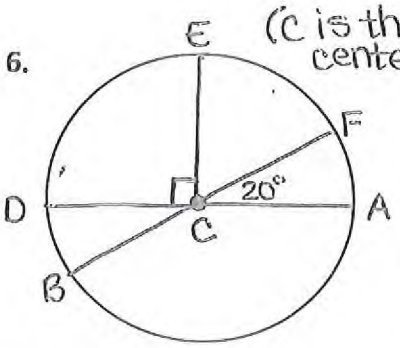


(C is the center)

$m\angle ADB =$ _____

$m\angle BAD =$ _____

6.

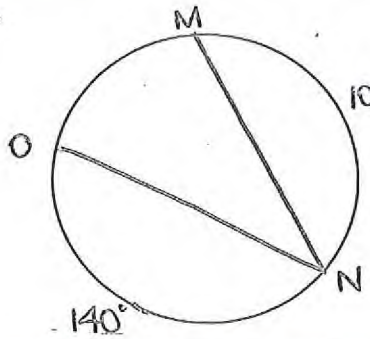


(C is the center)

$m\overset{\frown}{EFB} =$ _____

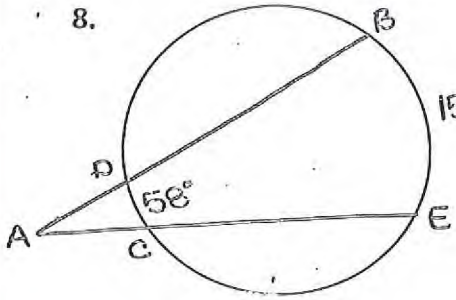
$m\angle ECF =$ _____

7.



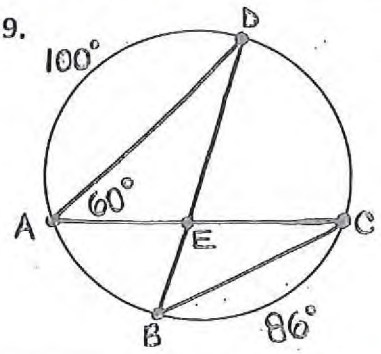
$m\angle ONM =$ _____

8.



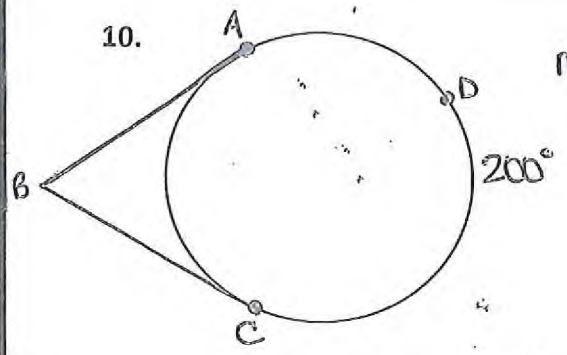
$m\angle BAE =$ _____

9.



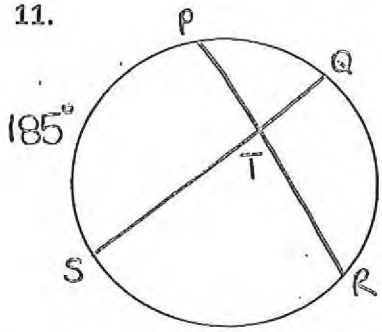
$m\angle DEA =$ _____

10.



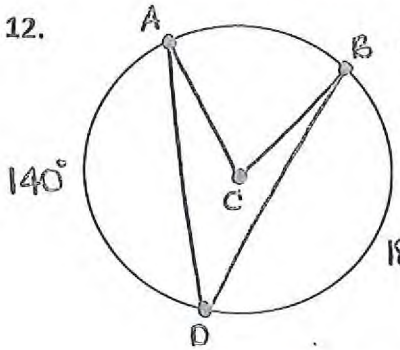
$m\angle ABC =$ _____

11.



$m\angle QTR =$ _____

12.

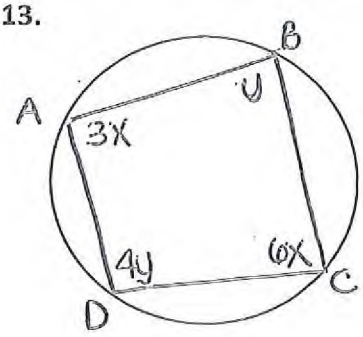


(C is the center)

$m\angle ADB =$ _____

$180° \; m\angle ACB =$ _____

13.



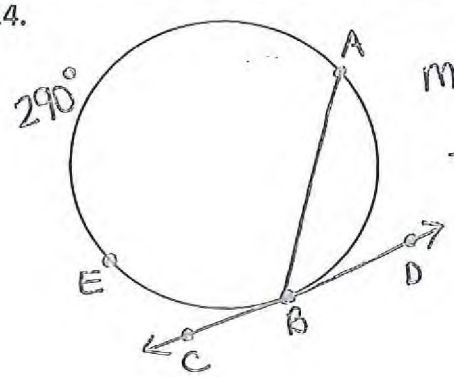
$x =$ _____

$y =$ _____

$m\angle A =$ _____

$m\angle D =$ _____

14.



$m\angle ABD =$ _____

Unit 3 Quiz 2

29 = 50

Name: key

4pt **1.** Circle M has a circumference of 44.92 feet. What is the area of Circle M? (Show all of your work and round your answer to the nearest tenth.)

$C = 2\pi r$

$\frac{44.92}{2\pi} = \frac{2\pi r}{2\pi}$

$7.1 = r$

$A = \pi r^2$

$= \pi \cdot 7.1^2$

$= 158.4 \text{ ft}^2$

*need to check individual work
- answers could vary depending on method

4pt **2.** Circle W has an area of 3318.31 square feet. What is the circumference of Circle W? (Show all of your work and round your answer to the nearest tenth.)

$A = \pi r^2$

$\frac{3318.31}{\pi} = \frac{\pi r^2}{\pi}$

$1056.3 = r^2$

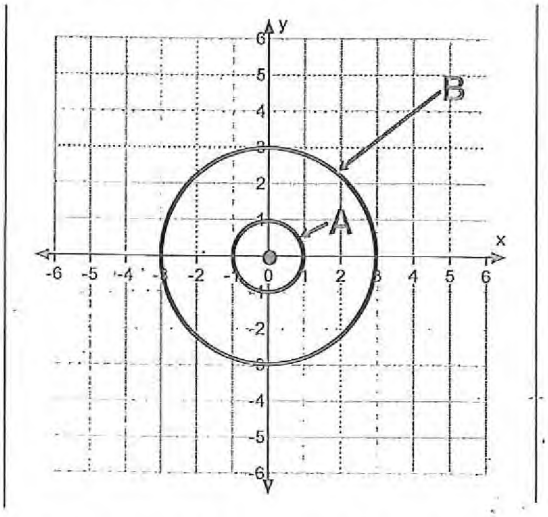
$32.5 = r$

$C = 2\pi r$

$= 2 \cdot \pi \cdot 32.5$

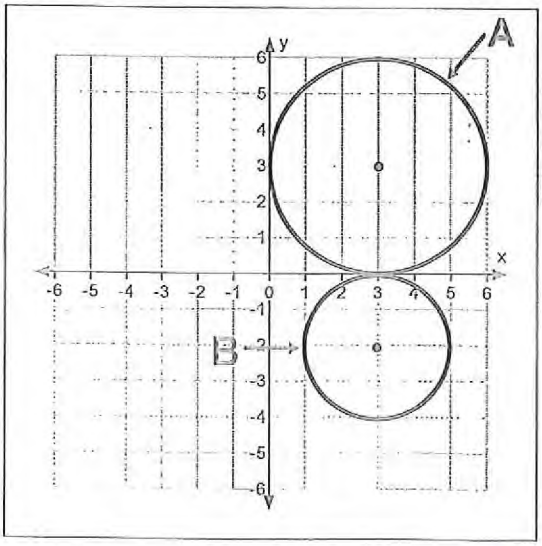
$= 204.2 \text{ ft}$

2pt **3.** Prove that Circle A is similar to Circle B. (Circle A is the original circle.)



Circle A was dilated by a factor of 3 to create circle B.

3pt **4.** Prove that Circle A is similar to Circle B. (Circle A is the original circle.)

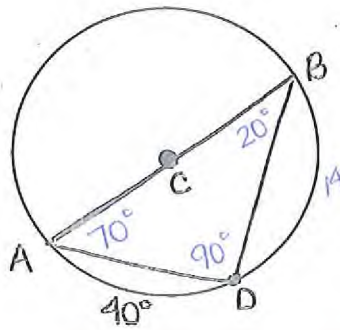


circle A was dilated by a factor of $\frac{2}{3}$ and translated down 5 units to create circle B.

13 pts

For each figure below, find the indicated measure or value.

2pt **5.**

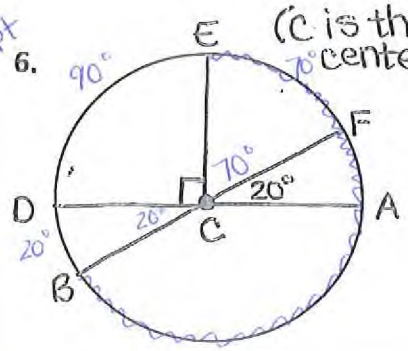


(C is the center)

$m\angle ADB =$ 90°

$m\angle BAD =$ 70°

2pt **6.**

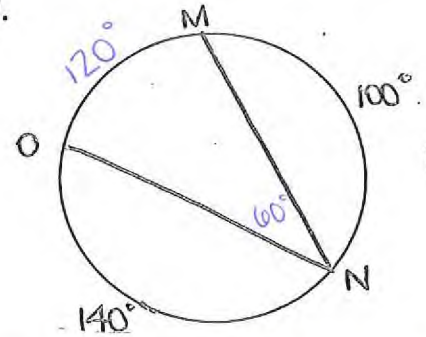


(C is the center)

$m\overset{\frown}{EFB} =$ 250°

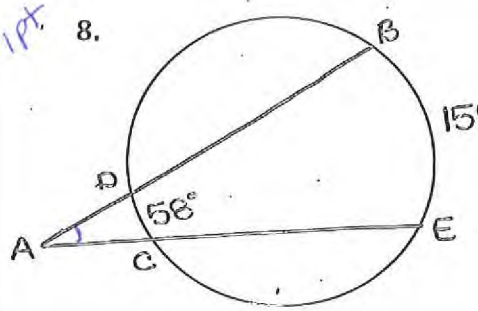
$m\angle ECF =$ 70°

1pt **7.**



$m\angle ONM =$ 60°

1pt **8.**

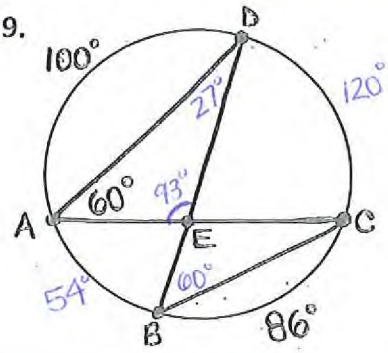


$m\angle BAE =$ 50°

$\frac{1}{2}(158-58)$

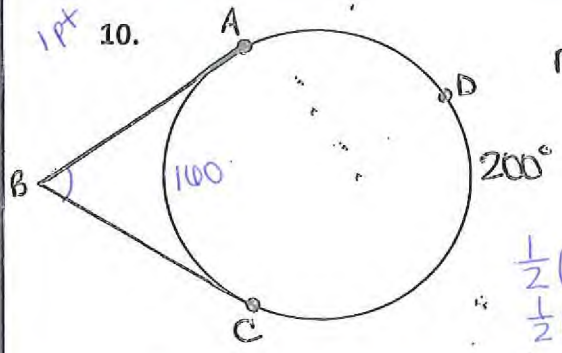
$\frac{1}{2}(100)$

1pt **9.**



$m\angle DEA =$ 93°

1pt **10.**

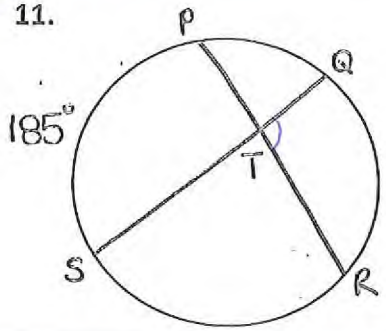


$m\angle ABC =$ 20°

$\frac{1}{2}(200-160)$

$\frac{1}{2}(40)$

1pt **11.**

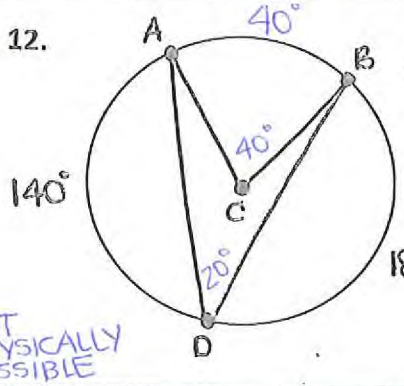


$m\angle QTR =$ 121°

$\frac{1}{2}(57+185)$

121

2pt **12.**



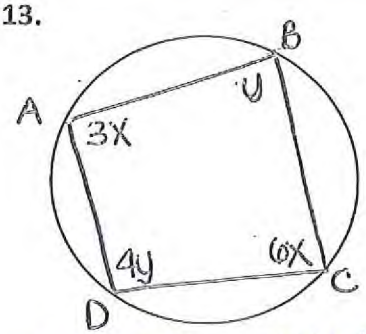
(C is the center)

$m\angle ADB =$ 20°

$m\angle ACB =$ 40°

* NOT PHYSICALLY POSSIBLE

4pt **13.**



$x =$ 20

$y =$ 36

$m\angle A =$ 60°

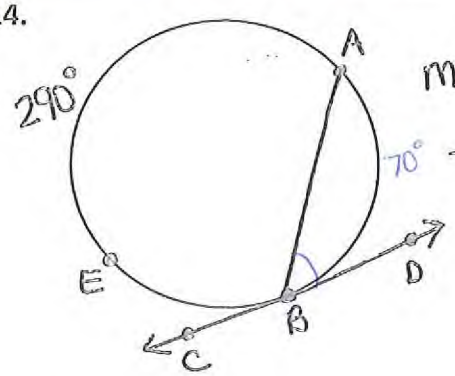
$m\angle D =$ 144°

$3x+6x=180$
$9x=180$
$x=20$

$y+4y=180$
$5y=180$
$y=36$

$\angle A = 3(20)$
$\angle D = 4(36)$

1pt **14.**



$m\angle ABD =$ 35°

10 pts