

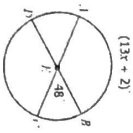
Geometry Review

QUIZ 6

Name: _____

Date: _____ Per: _____

1. Given the circle below, find the value of x .



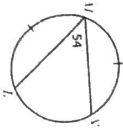
$$13x + 2 = 132$$

$$13x = 130$$

$$x = 10$$

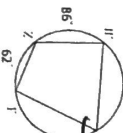
A. 10

2. Given the circle below, what is the measure of $\angle MN?$



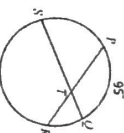
A. 126°
 B. 132°
 C. 153°
 D. 252°

3. Given the circle below, what is the measure of $\angle Z?$



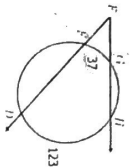
A. 74°
 B. 102°
 C. 106°
 D. 112°

4. Given the circle below, what is the measure of $\angle QTR?$



A. 62°
 B. 62°
 C. 62°
 D. 62°

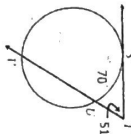
5. Given the circle below, what is the measure of $\angle EFG?$



$$\frac{1}{2}(123 - 37)$$

A. 43°
 B. 43°
 C. 43°
 D. 43°

6. Given the circle below, what is the measure of $\angle UV?$



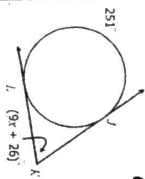
$$51 = \frac{1}{2}(x - 70)$$

$$102 = x - 70$$

$$172 = x$$

A. 110°
 B. 118°
 C. 124°
 D. 172°

7. Given the circle below, find the value of x .



$$9x + 26 = \frac{1}{2}(251 - 109)$$

$$9x + 26 = \frac{1}{2}(142)$$

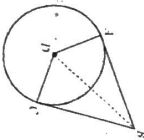
$$9x + 26 = 71$$

$$9x = 45$$

$$x = 5$$

A. x = 5
 B. x = 6
 C. x = 7
 D. x = 8

8. If \overline{AB} and \overline{BC} are tangent to circle D , $AB = 15$ inches, and $DB = 17$ inches, find the perimeter of $ABCD$.



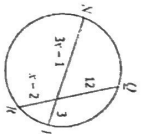
$$17^2 = 15^2 + x^2$$

$$64 = x^2$$

$$8 = x$$

A. 42 inches
 B. 46 inches
 C. 50 inches
 D. 64 inches

9. Given the circle below, find QR .



$$3(3x - 1) = 12(x - 2)$$

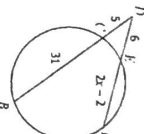
$$9x - 3 = 12x - 24$$

$$21 = 3x$$

$$x = 7$$

A. 17
 B. 18
 C. 19
 D. 20

10. Given the circle below, find EF .



$$6(2x - 2) = 5(31)$$

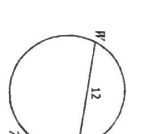
$$12x + 24 = 155$$

$$12x = 131$$

$$x = 13$$

A. 13
 B. 20
 C. 24
 D. 30

11. Given the circle below, find the value of x .



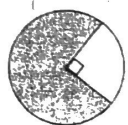
$$x \cdot x = 16 \cdot 4$$

$$x^2 = 64$$

$$x = 8$$

A. 8
 B. 8
 C. 8
 D. 8

13. If the radius of the circle below is 9 m, find the approximate area of the shaded region.



$$\frac{\pi \cdot 9^2 \cdot 220}{360}$$

A. 152 m²
 B. 163 m²
 C. 178 m²
 D. 191 m²

14. Give the equation of the circle $(x + 5)^2 + (y - 1)^2 = 16$, which correctly gives the center and radius of the circle?

A. $(5, -1); r = 4$
 B. $(-5, 1); r = 4$
 C. $(5, -1); r = 8$
 D. $(-5, 1); r = 8$

15. A circle with a center at $(2, -3)$ passes through the point $(-1, -8)$. Write the equation of the circle.

$$d = \sqrt{(-1 - 2)^2 + (-8 + 3)^2}$$

$$d = \sqrt{9 + 25}$$

A. $(x - 2)^2 + (y + 3)^2 = 34$
 B. $(x + 2)^2 + (y - 3)^2 = 34$
 C. $(x - 2)^2 + (y + 3)^2 = 17$
 D. $(x + 2)^2 + (y - 3)^2 = 17$

16. The endpoints of a diameter of a circle are located at $(3, -7)$ and $(5, 7)$. Write the equation of the circle.

Center: $(4, 0)$

$$d = \sqrt{(5 - 4)^2 + (7 - 0)^2}$$

$$d = \sqrt{1 + 49} = \sqrt{50}$$

A. $(x - 4)^2 + y^2 = 25$
 B. $(x + 4)^2 + y^2 = 25$
 C. $(x - 4)^2 + y^2 = 50$
 D. $(x + 4)^2 + y^2 = 50$