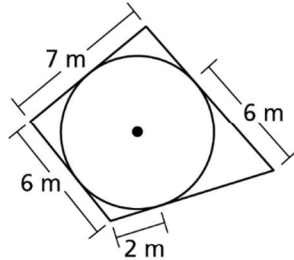


Chapter 10 Test Prep

- Segments that are tangent to the circle form a quadrilateral. What is the perimeter of the quadrilateral?
- The measure of one interior angle of a parallelogram is 30° more than 5 times the measure of another interior angle. What is the measure of the smaller angle?

- (A) 15 m
(B) 21 m
(C) 26 m
(D) 30 m

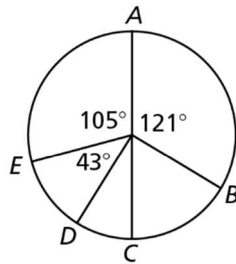


- (A) 25°
(B) 30°
(C) 36°
(D) 55°

- Write the standard equation of the circle with center $(-5, 12)$ that passes through the point $(-9, 15)$.

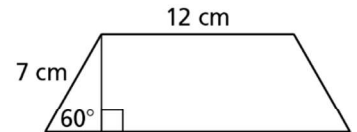
- Which arc is a major arc?

- (A) $\widehat{BE}$
(B) $\widehat{ADC}$
(C) $\widehat{CBA}$
(D) $\widehat{BDA}$



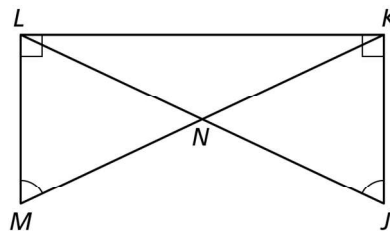
- What is the area of the isosceles trapezoid?

- (A) about 45.0 cm^2
(B) about 63.2 cm^2
(C) about 83.9 cm^2
(D) about 94.0 cm^2



- Which congruence statements are true? Select all that apply.

- (A) $\overline{KN} \cong \overline{JN}$
(B) $\angle JLM \cong \angle MKJ$
(C) $\overline{MN} \cong \overline{LN}$
(D) $\overline{KM} \cong \overline{LJ}$
(E) $\triangle LMN \cong \triangle LKJ$
(F) $\triangle KLM \cong \triangle LKJ$

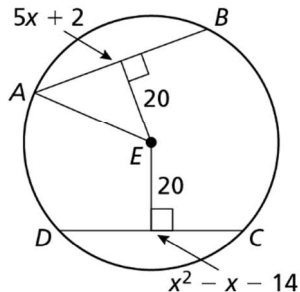


Chapter 10

Test Prep (continued)

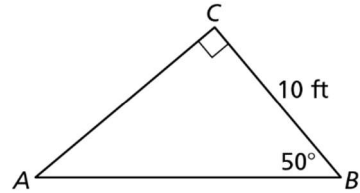
7. What is the radius of $\odot E$?

- (A) 21
(B) 29
(C) 42
(D) 46.5



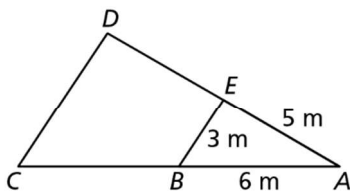
8. What is the perimeter of $\triangle ABC$?

- (A) about 24.8 ft
(B) about 28.4 ft
(C) about 34.0 ft
(D) about 37.5 ft



9. $\overline{BE}$ is a midsegment of $\triangle ACD$. What is the perimeter of trapezoid $BCDE$?

- (A) 14 m
(B) 20 m
(C) 28 m
(D) 31 m



10. In trapezoid $ABCD$, $\overline{AB} \parallel \overline{CD}$, $CD = 4 \cdot AB$, and $\overline{MN}$ is the midsegment of $ABCD$. What is the ratio of CD to MN ?

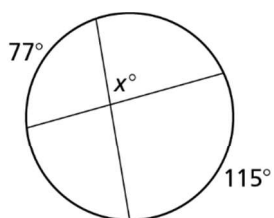
- (A) 2 : 5
(B) 5 : 8
(C) 8 : 5
(D) 5 : 2

11. Which statements guarantee that $\triangle QRS \sim \triangle XYZ$? Select all that apply.

- (A) $\triangle QRS$ and $\triangle XYZ$ are equilateral.
(B) $m\angle Q = 39^\circ$, $m\angle R = 56^\circ$, $m\angle X = 39^\circ$, and $m\angle Z = 95^\circ$.
(C) $\triangle XYZ$ is a right isosceles triangle and $m\angle Q + m\angle R = 90^\circ$.
(D) $m\angle R = 107^\circ$, $m\angle S = 25^\circ$, $m\angle X = 48^\circ$, and $m\angle Y = 107^\circ$.
(E) $m\angle Q + m\angle S = 138^\circ$ and $m\angle Y + m\angle Z = 116^\circ$.

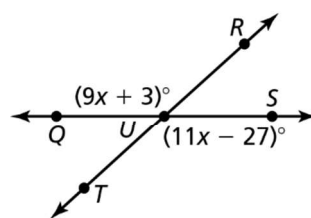
12. What is the value of x ?

- (A) 42
(B) 48
(C) 84
(D) 96



13. What is $m\angle QUT$?

- (A) 42°
(B) 54.3°
(C) 85.2°
(D) 138°



Chapter 10

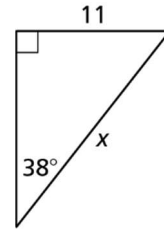
Test Prep (continued)

14. What is the difference of the geometric mean and the arithmetic mean of 18 and 128?

-	-	-	-	-	-	-
/	/	/	/	/	/	/
.	.	.	.	.	.	.
0	0	0	0	0	0	0
1	1	1	1	1	1	1
2	2	2	2	2	2	2
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	8
9	9	9	9	9	9	9

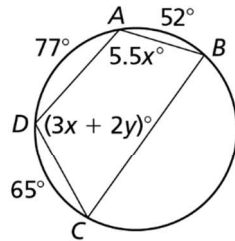
15. What is the value of x rounded to the nearest thousandth?

-	-	-	-	-	-	-
/	/	/	/	/	/	/
.	.	.	.	.	.	.
0	0	0	0	0	0	0
1	1	1	1	1	1	1
2	2	2	2	2	2	2
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	8
9	9	9	9	9	9	9



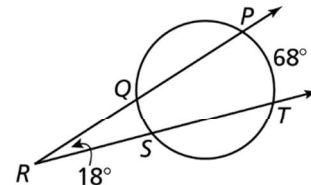
16. What is the value of y ?

- (A) 21
(B) 23
(C) 42
(D) 46



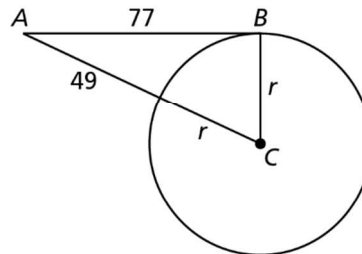
17. What is $m\widehat{QS}$?

- (A) 25
(B) 32
(C) 43
(D) 52



18. Point B is a point of tangency. What is the radius r of $\odot C$?

-	-	-	-	-	-	-
/	/	/	/	/	/	/
.	.	.	.	.	.	.
0	0	0	0	0	0	0
1	1	1	1	1	1	1
2	2	2	2	2	2	2
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	8
9	9	9	9	9	9	9

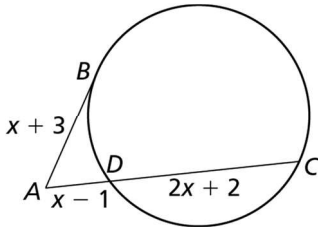


Chapter 10

Test Prep (continued)

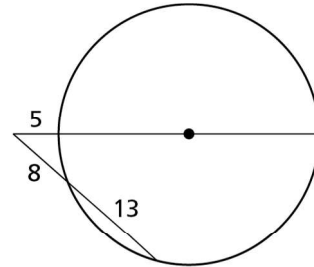
19. What is AB ?

- (A) 2
(B) 5
(C) 8
(D) 16



20. What is the radius of the circle?

- (A) 10.4
(B) 14.3
(C) 20.8
(D) 28.6



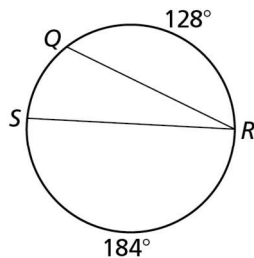
21. You graph the circle $(x + 3)^2 + (y - 2)^2 = 25$ and the line $x = -8$ in a coordinate plane. Which statement is true?

- (A) The line is a tangent of the circle.
(B) The line is a secant of the circle.
(C) The line is a secant that contains the diameter of the circle.
(D) The line does not pass through the circle.

22. Write an equation of the parabola with vertex $(6, 1)$ and directrix $x = 3$.

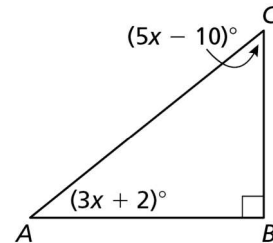
23. What is $m\angle R$?

- (A) 24°
(B) 28°
(C) 48°
(D) 96°



24. What is $m\angle A$?

- (A) 12.25°
(B) 23.5°
(C) 38.75°
(D) 51.25°



25. $\triangle XYZ$ has vertices $X(-2, 1)$, $Y(3, -1)$, and $Z(1, 4)$. What are the vertices of its image after a dilation with a scale factor of 4?
