

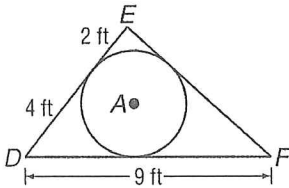
___ 6. Find the angle of elevation of the sun if a building 100 feet tall casts a shadow 150 feet long. Round to the nearest degree.

- a. 60°
- b. 48°
- c. 42°
- d. 34°

___ 7. A circle has an area of 169π in², find the circumference.

- a. 13
- b. 26
- c. 13π
- d. 26π

___ 8. If \overline{DE} , \overline{EF} , and \overline{FD} are tangent to $\odot A$, find EF .

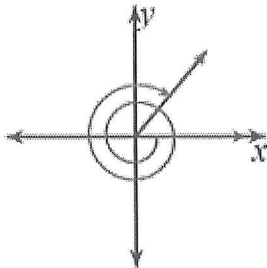


- a. 9 ft
- b. 8 ft
- c. 7 ft
- d. 6 ft

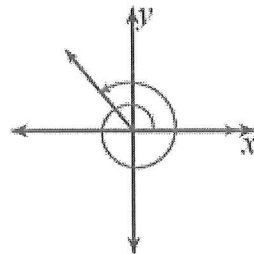
___ 9. In $\odot X$, chords \overline{AB} and \overline{CD} are congruent and \overline{AB} is 9 units from X . Find the distance from \overline{CD} to X .

- a. 4.5 units
- b. 9 units
- c. 18 units
- d. cannot tell

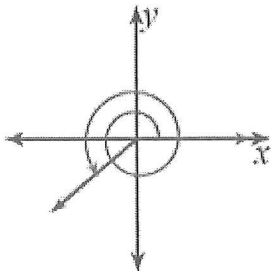
___ 10. Sketch the angle -670°



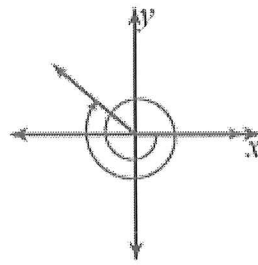
a.



c.

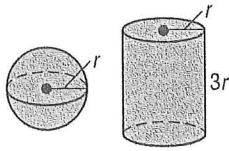


b.



d.

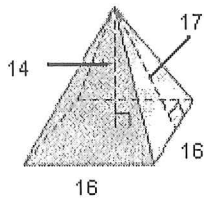
19. Which solid has the greater volume?



- a. sphere
- b. cylinder
- c. The volumes are equal.
- d. not enough information

Find the surface area of the solid.

20.

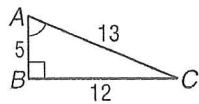


- a. 800 units²
- b. 392 units²
- c. 704 units²
- d. 288 units²

21. Given the point $(6\sqrt{3}, -6)$ is on the terminal side of an angle, find $\cos \theta$.

- a. $\cos \theta = -1$
- b. $\cos \theta = \frac{\sqrt{3}}{2}$
- c. $\cos \theta = \frac{1}{2}$
- d. $\cos \theta = \frac{-\sqrt{2}}{2}$

22. Find the triangle similar to $\triangle ABC$ below



- a.

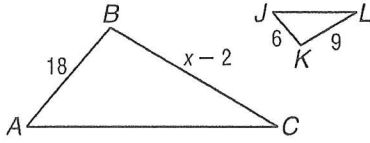
A right-angled triangle with legs of length 3 and 12, and a hypotenuse of length 5. The right angle is at the bottom right.
- b.

A right-angled triangle with legs of length 36 and 15, and a hypotenuse of length 39. The right angle is at the top right.
- c.

A right-angled triangle with legs of length 10 and 24, and a hypotenuse of length 22. The right angle is at the bottom left.
- d.

A right-angled triangle with legs of length 3 and 4, and a hypotenuse of length 5. The right angle is at the bottom left.

___ 23. Find x if $\triangle ABC \sim \triangle JKL$.

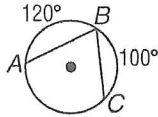


- a. 10
- b. 14
- c. 25
- d. 29

___ 24. A 5-foot tall student cast a 4-foot shadow. If the tree next to her cast a 44-foot shadow, what is the height of the tree?

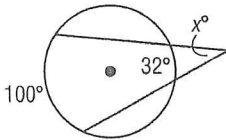
- a. $35\frac{1}{5}$ ft
- b. 45 ft
- c. $51\frac{1}{2}$ ft
- d. 55 ft

___ 25. Find $m\angle ABC$.



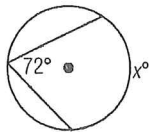
- a. 50
- b. 70
- c. 90
- d. 140

___ 26. Find x .



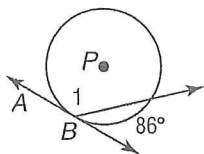
- a. 132
- b. 68
- c. 66
- d. 34

___ 27. Find x .



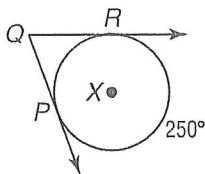
- a. 36
- b. 72
- c. 144
- d. 180

____ 28. If \overleftrightarrow{AB} is tangent to $\odot P$ at B , find $m\angle 1$.



- a. 43
- b. 86
- c. 137
- d. 274

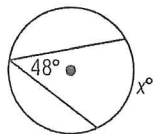
____ 29. Find $m\angle PQR$ if \overrightarrow{QP} and \overrightarrow{QR} are tangent to $\odot X$.



- a. 70
- b. 110
- c. 125
- d. 140

Short Answer

30. Find x .



Please remember there will be SA and Volume on the exam as well so be sure to study that material!

PRACTICE EXAM 2021 GEOMETRY
Answer Section

MULTIPLE CHOICE

1. D
2. C
3. A
4. C
5. C
6. D
7. D
8. C
9. B
10. A
11. B
12. C
13. B
14. A
15. D
16. C
17. A
18. D
19. B
20. A
21. B
22. B
23. D
24. D
25. B
26. D
27. C
28. C
29. A

SHORT ANSWER

30. 96