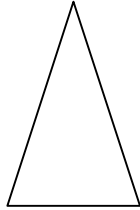


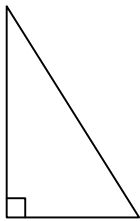
Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. Which triangle is obtuse?

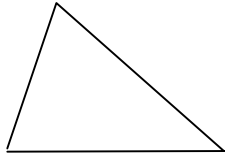
A)



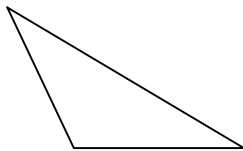
B)



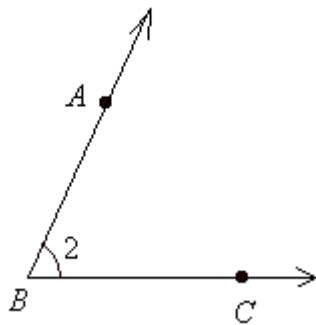
C)



D)



2. Which of the following is not a way to name the angle shown?



A)  $\sphericalangle BAC$

B)  $\sphericalangle B$

C)  $\sphericalangle CBA$

D)  $\sphericalangle 2$

3. Find the measure of the supplement of  $58^\circ$ .

- A)  $32^\circ$  B)  $148^\circ$  C)  $302^\circ$  D)  $122^\circ$

4. In triangle  $ABC$ , angle  $C$  is a right angle. Find the measure of angle  $B$  if side  $b = 105$  m and side  $c = 139$  m.

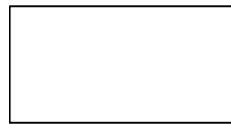
- A)  $49^\circ$  B)  $59^\circ$  C)  $53^\circ$  D)  $47^\circ$

5. Which quadrilateral is a trapezoid?

A)



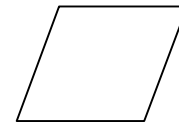
C)



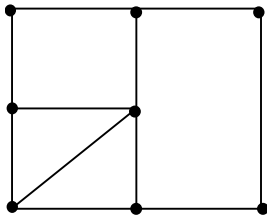
B)



D)

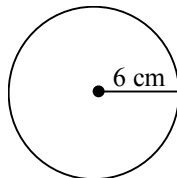


6. Determine whether or not the network is traversable.



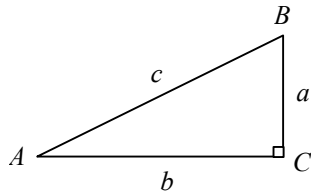
- A) No, it is not traversable. B) Yes, it is traversable.

7. Find the circumference of the circle. Use  $\pi = 3.14$ .



- A) 113.04 cm B) 18.84 cm C) 56.52 cm D) 37.68 cm

8. What is the definition of  $\cos A$  for the following triangle?

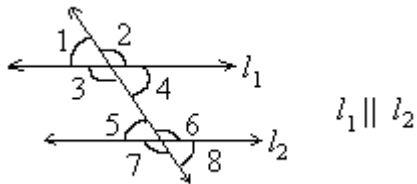


- A)  $\frac{b}{c}$    B)  $\frac{a}{b}$    C)  $\frac{b}{a}$    D)  $\frac{a}{c}$

9. A tent is shaped like a pyramid. It has a square base measuring 8 feet on a side and a height of 6 feet. What is the volume of the tent?

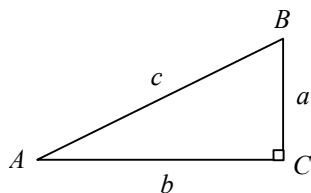
- A)  $128 \text{ ft}^3$    B)  $16 \text{ ft}^3$    C)  $512 \text{ ft}^3$    D)  $32 \text{ ft}^3$

10. Identify angles 6 and 7 as alternate interior, alternate exterior, corresponding, or vertical.



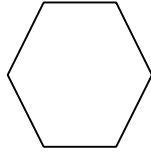
- A) Vertical   B) Alternate interior   C) Alternate exterior   D) Corresponding

11. What is the definition of  $\tan A$  for the following triangle?



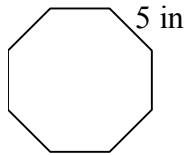
- A)  $\frac{b}{c}$    B)  $\frac{b}{a}$    C)  $\frac{a}{c}$    D)  $\frac{a}{b}$

12. Identify the polygon and find the sum of the measures of the angles.



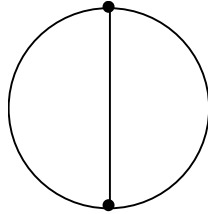
- A) Hexagon;  $900^\circ$    B) Hexagon;  $720^\circ$    C) Heptagon;  $900^\circ$    D) Heptagon;  $720^\circ$

13. Find the perimeter.



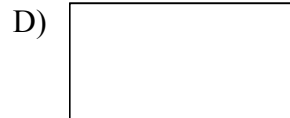
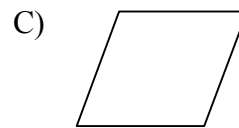
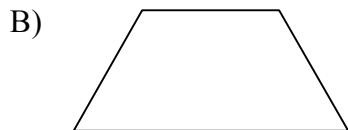
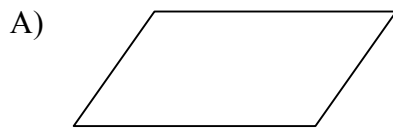
- A) 25 inches   B) 45 inches   C) 40 inches   D) 35 inches

14. Determine whether or not the network is traversable.

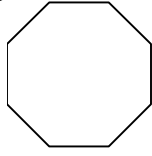


- A) No, it is not traversable.   B) Yes, it is traversable.

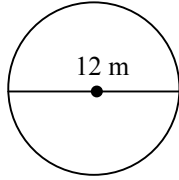
15. Which quadrilateral is a rhombus?



16. Identify the following polygon and find the sum of the measures of the angles.

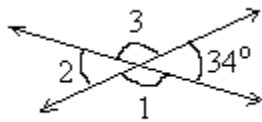


17. Find the area of the circle. Use  $\pi = 3.14$ .



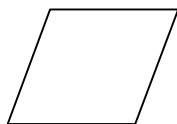
18. In triangle  $ABC$ , angle  $C$  is a right angle. Find the measure of side  $a$  if the measure of angle  $B$  is  $9^\circ$  and side  $c = 100$  in.

19. Find the measures of angles 1, 2, and 3.



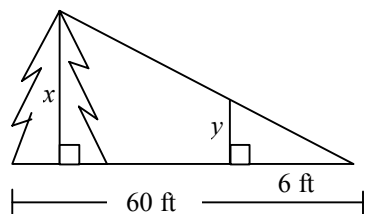
20. In triangle  $ABC$ , angle  $C$  is a right angle. Find the measure of angle  $A$  if side  $b = 42$  m and side  $c = 165$  m.

21. Identify the quadrilateral.

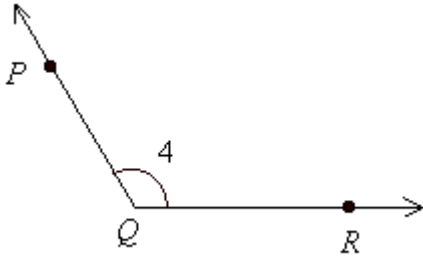


22. Find the measure of the complement of  $12^\circ$ .

23. Find the height of the tree,  $x$ , if the measure of  $y$  is 4 feet.



24. Name the angle in four different ways.



25. Find the horizontal distance from a ship to the base of a 150-foot-tall lighthouse if the angle of depression to the ship from the top of the lighthouse is  $24^\circ$ . (Disregard the dimensions of the ship.)

**Answer Key**

1. D
2. A
3. D
4. A
5. A
6. A
7. D
8. A
9. A
10. A
11. D
12. B
13. C
14. B
15. C
16. Octagon,  $1080^\circ$
17.  $113.04 \text{ m}^2$
18. 98.77 in.
19.  $m\angle 1 = 146^\circ$ ,  $m\angle 2 = 34^\circ$ ,  $m\angle 3 = 146^\circ$
20.  $75^\circ$
21. Rhombus
22.  $78^\circ$
23. 40 ft
24.  $\sphericalangle PQR$ ;  $\sphericalangle RQP$ ;  $\sphericalangle Q$ ; 4
25. 336.93 feet