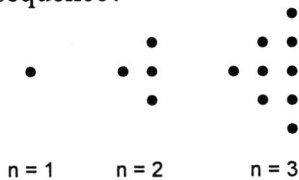


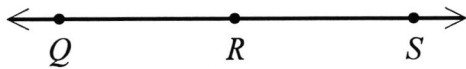
NAME _____

1. The first three members of a sequence are shown.
How many dots are in the fourth member of the sequence?



- [A] 30 [B] 14
[C] 16 [D] 7

2. If $RS = 34.1$ and $QS = 68$, find QR .



- [A] 33.9 [B] 23.9
[C] 102.1 [D] 34.1

3. Let E be between F and G . Use the Segment Addition Postulate to solve for r .

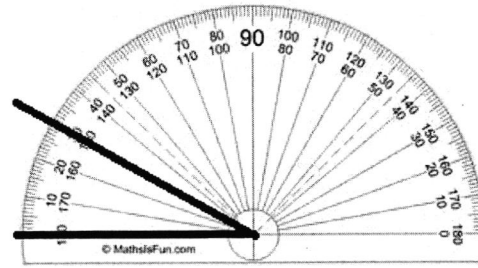
$$\begin{aligned} FE &= 6r - 20 \\ EG &= 5r - 24 \\ FG &= 55 \end{aligned}$$

- [A] $r = 14$ [B] $r = 5$
[C] $r = -4$ [D] $r = 9$

4. What is the name of a segment joining the midpoints of the sides of a triangle?

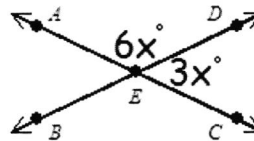
- [A] median
[B] altitude
[C] perpendicular bisector
[D] midsegment

What is the measure of the angle shown?



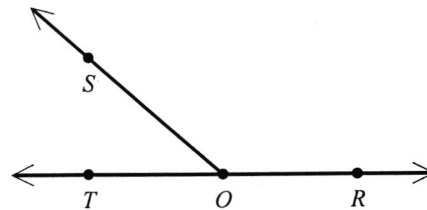
- [A] 30 [B] 50
[C] 130 [D] 150

7. Solve for X



- [A] $x = 0$
[B] $x = 10$
[C] $x = 20$
[D] $x = 180$

8. If angle ROS is obtuse and angle TOR is straight, then angle TOS is what kind of angle?

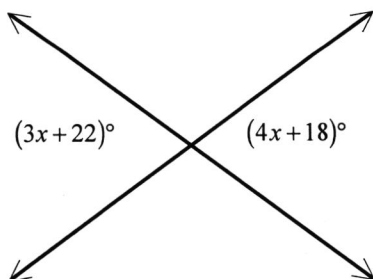


- [A] obtuse [B] straight
[C] right [D] acute

9. $m\angle ABC = 122^\circ$, $m\angle XYZ = 58^\circ$ Which of the following statements is true?

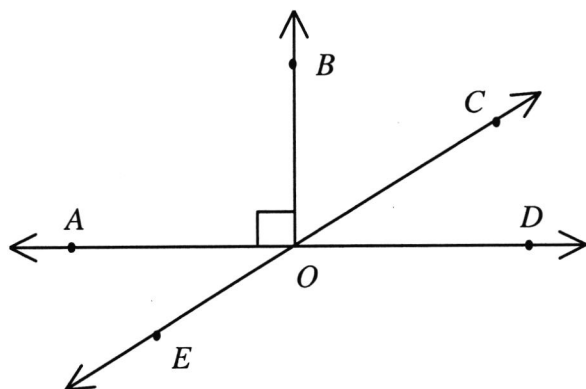
- [A] $\angle ABC$, $\angle XYZ$ are vertical angles
- [B] $\angle ABC$, $\angle XYZ$ are complimentary angles
- [C] $\angle ABC$, $\angle XYZ$ are supplementary angles
- [D] $\angle ABC$, $\angle XYZ$ are a linear pair

10. Solve for x :



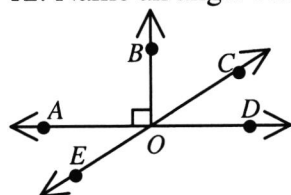
- [A] 5
- [B] 2
- [C] 7
- [D] 4

11. Name an angle adjacent to $\angle BOC$.



- [A] $\angle DOE$
- [B] $\angle DOB$
- [C] $\angle BOA$, $\angle BOE$ or $\angle COD$
- [D] $\angle COD$ or $\angle AOE$

12. Name an angle complementary to $\angle COD$.



- [A] $\angle DOE$
- [B] $\angle AOC$ or $\angle DOE$
- [C] $\angle DOC$ or $\angle AOE$
- [D] $\angle BOC$

13. Rewrite the statement in if-then form.

All right triangles have an angle with a measure of 90 degrees.

[A] A figure has an angle with a measure of 90 degrees if and only if it is a right triangle.

[B] If a figure has an angle with a measure of 90 degrees, then it is a right triangle.

[C] A figure is a right triangle if and only if it has an angle with a measure of 90 degrees.

[D] If a figure is a right triangle, then it has an angle with a measure of 90 degrees.

14. "If I get a chance, I will succeed." In this conditional statement, the underlined portion is _____.

- [A] the conclusion
- [B] the converse
- [C] the hypothesis
- [D] the argument

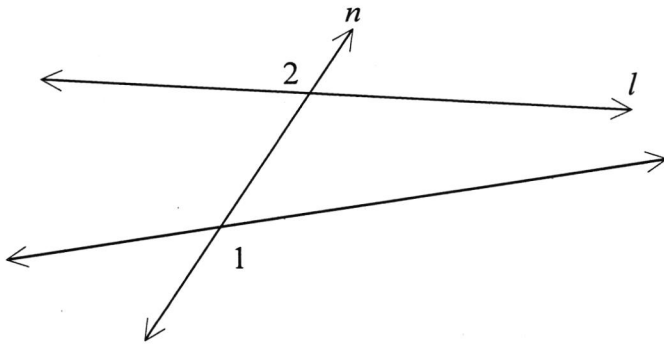
15. Decide which one of the following statements is false.

- [A] A line contains at least two points.
- [B] Through any two distinct points there exists exactly one line.
- [C] Three noncollinear points determine a plane.
- [D] Any three points lie on a distinct line.

16. Two lines that are not coplanar and do not intersect are called _____.

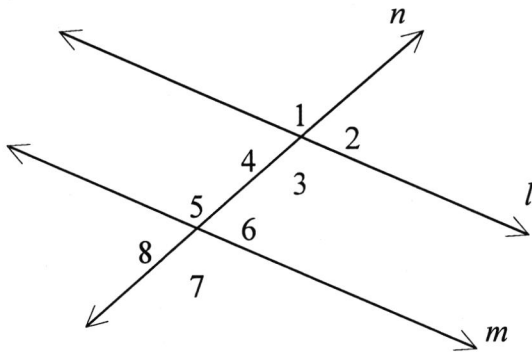
- [A] perpendicular
- [B] parallel
- [C] skew lines
- [D] oblique

17. In the figure, $\angle 1$ and $\angle 2$ are _____.



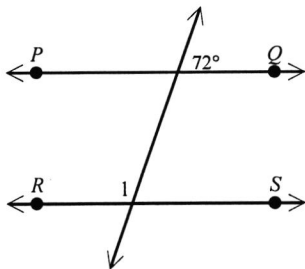
- [A] corresponding angles
- [B] consecutive interior angles
- [C] alternate interior angles
- [D] alternate exterior angles

18. In the figure, $\angle 6$ and $\angle 3$ are _____.



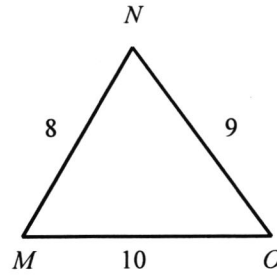
- [A] consecutive interior angles
- [B] corresponding angles
- [C] alternate exterior angles
- [D] alternate interior angles

19. Find $m\angle 1$ in the figure below. \overleftrightarrow{PQ} and \overleftrightarrow{RS} are parallel.



- [A] 108°
- [B] 98°
- [C] 18°
- [D] 72°

20. Classify $\triangle MNO$.

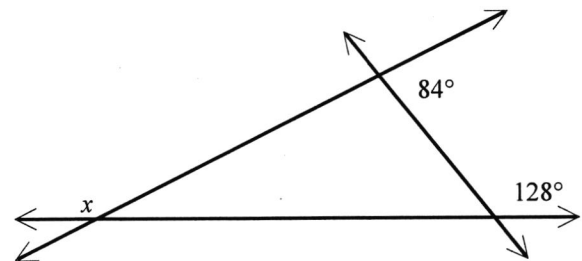


- [A] Equilateral
- [B] Isosceles
- [C] Scalene
- [D] none of these

21. A triangle has angle measures of 60° , 60° , and 60° . Choose the term that describes the triangle.

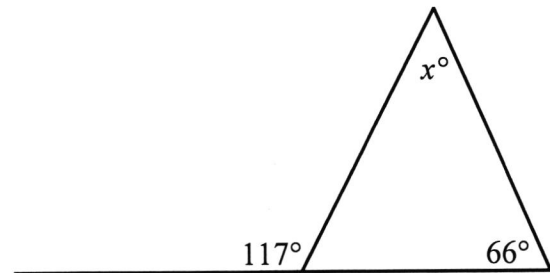
- [A] Scalene
- [B] Obtuse
- [C] Right
- [D] Acute

22. Find the value of x :



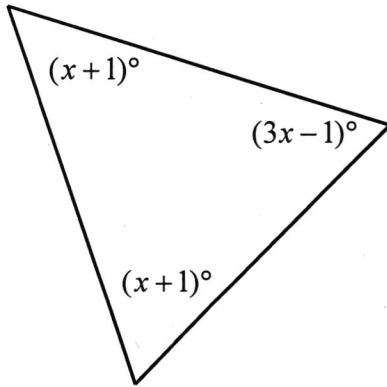
- [A] 128°
- [B] 84°
- [C] 32°
- [D] 148°

23. Find the value of x .



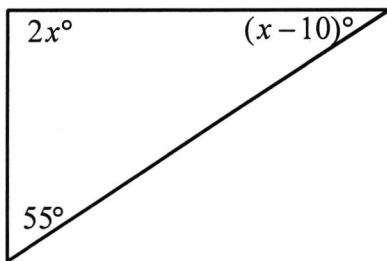
- [A] 297
- [B] 66
- [C] 51
- [D] 117

24. Find the measure of the interior angles to the nearest tenth. (Drawing is not to scale.)



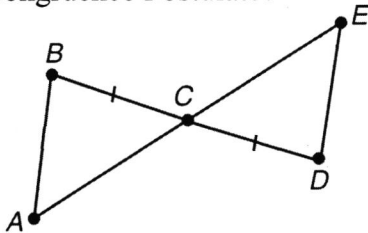
- [A] 36.2° , 40.9° , 102.9°
- [B] 39.3° , 34.8° , 105.9°
- [C] 35.3° , 37.8° , 106.9°
- [D] 36.8° , 36.8° , 106.4°

25. Use the figure below to solve for x .



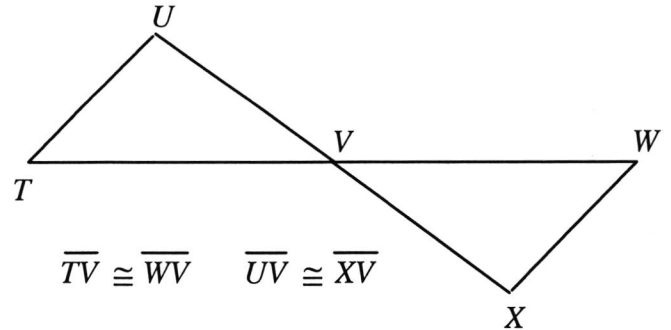
- [A] 145
- [B] 45
- [C] 90
- [D] 55

27. What must be true in order for $\triangle ABC \cong \triangle EDC$ by the SAS Congruence Postulate?



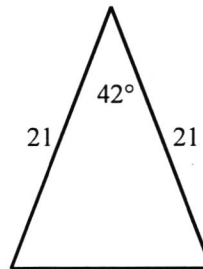
- [A] $\overline{AC} \cong \overline{CE}$
- [B] $\angle A \cong \angle E$
- [C] $\angle B \cong \angle D$
- [D] $\overline{AB} \cong \overline{DE}$

28. Refer to the figure shown. Which of the following statements is true?



- [A] $\triangle TUV \cong \triangle WXV$ by SAS
- [B] $\triangle TUV \cong \triangle VWX$ by SAS
- [C] $\triangle TUV \cong \triangle XWV$ by ASA
- [D] $\triangle TUV \cong \triangle WXV$ by ASA

29. What is the measure of each base angle of an isosceles triangle if its vertex angle measures 42 degrees and its 2 congruent sides measure 21 units?



- [A] 42°
- [B] 138°
- [C] 48°
- [D] 69°