

G.G.69: Triangles in the Coordinate Plane: Investigate, justify, and apply the properties of triangles in the coordinate plane, using the distance, midpoint, and slope formulas

- 1 If the vertices of $\triangle ABC$ are $A(-2, 4)$, $B(-2, 8)$, and $C(-5, 6)$, then $\triangle ABC$ is classified as
- 1) right
 - 2) scalene
 - 3) isosceles
 - 4) equilateral

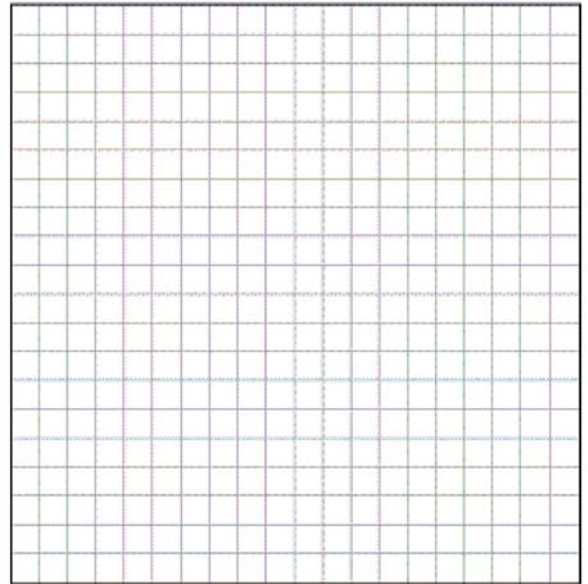
- 2 Triangle ABC has vertices $A(0, 0)$, $B(3, 2)$, and $C(0, 4)$. The triangle may be classified as
- 1) equilateral
 - 2) isosceles
 - 3) right
 - 4) scalene

- 3 Which type of triangle can be drawn using the points $(-2, 3)$, $(-2, -7)$, and $(4, -5)$?
- 1) scalene
 - 2) isosceles
 - 3) equilateral
 - 4) no triangle can be drawn

- 4 The vertices of $\triangle ABC$ are $A(-1, -2)$, $B(-1, 2)$ and $C(6, 0)$. Which conclusion can be made about the angles of $\triangle ABC$?
- 1) $m\angle A = m\angle B$
 - 2) $m\angle A = m\angle C$
 - 3) $m\angle ACB = 90$
 - 4) $m\angle ABC = 60$

- 5 Triangle ABC has vertices at $A(3, 0)$, $B(9, -5)$, and $C(7, -8)$. Find the length of \overline{AC} in simplest radical form.

- 6 Triangle ABC has coordinates $A(-6, 2)$, $B(-3, 6)$, and $C(5, 0)$. Find the perimeter of the triangle. Express your answer in simplest radical form. [The use of the grid below is optional.]



- 7 Given: $J(-4, 1)$, $E(-2, -3)$, $N(2, -1)$
Prove: $\triangle JEN$ is an isosceles right triangle.
[The use of the grid is optional.]

