

Chapter 8 Prerequisite Skills

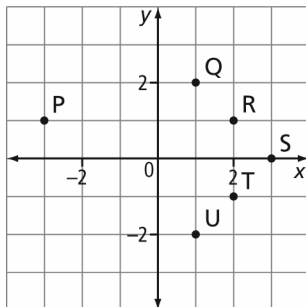
Show all your work.

- The length of a spring changes according to the formula $L = 12 + 4w$, where L represents the length of the spring, in centimetres, and w represents the mass, in grams, hanging on the spring.
 - Create a table of values using whole numbers for w .
 - Can the points on your graph be joined? Explain.
 - Draw the graph.
 - Use your graph to determine the value of L when $w = 2.5$.
 - Determine the value of w when $L = 25$.

- Draw a graph for each linear relation.

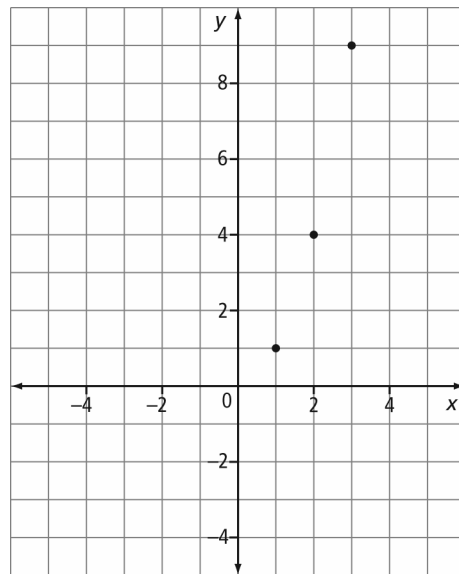
- $y = -2x + 5$
- $3x - 2y = 4$
- $5x + 4y - 8 = 0$

- Use the graph shown to answer the following questions.

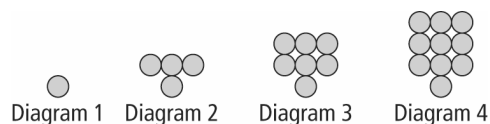


- Which point has coordinates $(2, -1)$?
- What are the coordinates of point S?
- Which two points have the same y -coordinate?
- Which three points could be joined to form a right triangle?
- What is the horizontal distance between points P and U?

- The graph shown is supposed to represent a linear relation. However, one of the points was plotted incorrectly.



- If the top point is incorrectly shown, what could its correct coordinates be? Why?
 - If the bottom point is incorrectly shown, what could its correct coordinates be?
- An isosceles triangle has two equal sides. Sketch an isosceles triangle ABC, where A is located at $(3, 2)$ and B is at $(-2, 8)$. Determine two possible ordered pairs for point C.
 - The following diagrams show a pattern.



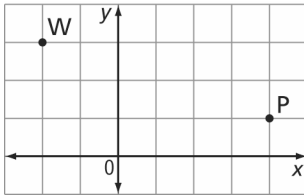
- Describe the pattern in words.
- Construct a chart showing the diagram number and the number of circles in the diagram.
- If x represents the diagram number and y represents the number of circles, draw a graph showing the pattern.

Name: _____

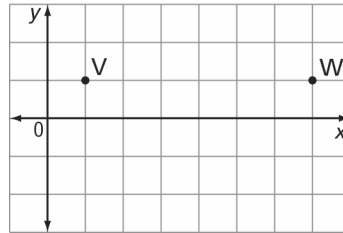
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7. Consider the points W and P, as shown.
Draw three rectangles that have points W and P as two of the vertices.



8. Consider the points V and W, as shown.



- a) Sketch a possible equilateral triangle UVW.
- b) Looking at your sketch, what can you say about the coordinates of point U?