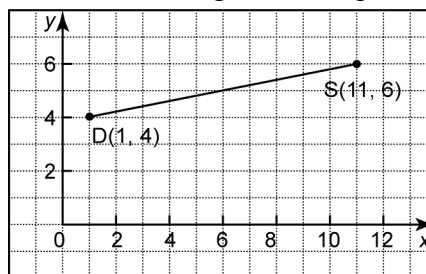


## Chapter 2 Test

- The midpoint of the line segment with endpoints A(-3, 5) and B(7, -1) is  
**A** (2, 2)      **B** (-5, 3)  
**C** (4, 4)      **D** (1, 3)
- The length of the line segment with endpoints C(-5, 2) and D(3, -1) is  
**A**  $\sqrt{17}$       **B**  $\sqrt{13}$   
**C**  $\sqrt{65}$       **D**  $\sqrt{73}$
- An equation for the circle with centre (0, 0) and radius 6 is  
**A**  $x^2 + y^2 = 6$       **B**  $x^2 + y^2 = 9$   
**C**  $x^2 + y^2 = 36$       **D**  $x^2 + y^2 = 12$
- The endpoints of a diameter of a circle are A(-4, 3) and B(2, -5). The coordinates of the centre of this circle are  
**A** (-3, -4)      **B** (-1, -1)  
**C** (3, 4)      **D** (-1, -3)
- The point (6, -3) lies on a circle with centre (0, 0). The equation of the circle is  
**A**  $x^2 + y^2 = 45$       **B**  $x^2 + y^2 = 3$   
**C**  $x^2 + y^2 = 9$       **D**  $x^2 + y^2 = 81$
- Find the midpoint and the length of the line segment defined by each pair of endpoints.
  - A(-5, 4) and B(3, -6)
  - C(-4, -3) and D(1, -2)
- Draw the triangle with vertices A(-5, -3), B(1, 5), and C(3, -1).
  - Determine an equation in slope y-intercept form for the median from B.
  - Determine an equation for the perpendicular bisector of AB.

- A computer store is located exactly halfway between David's house and his school. The intervals on the gridlines represent 1 km.



- How far apart are David's house and his school, to the nearest tenth of a kilometre?
  - Determine the coordinates of the computer store.
- The vertices of a triangle are D(-4, 5), E(-7, -1), and F(-1, -1).
    - Determine the lengths of the sides of the triangle.
    - Classify  $\triangle DEF$ . Explain your reasoning.
    - Determine the perimeter of  $\triangle DEF$ . Round your answer to the nearest tenth of a unit.
    - Describe how you could use geometry software to verify your answers to parts a), b), and c).
  - Plot the triangle with vertices X(-4, -3), Y(-2, 5), and Z(4, 1).
    - Determine an equation in slope y-intercept form for the median from vertex X.
    - Determine an equation for the right bisector of XY.
    - Determine an equation for the altitude from Y to XZ.