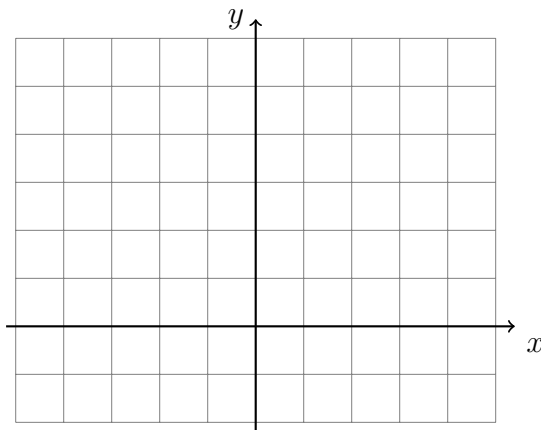


**Do Now: Midpoint and distance review**

Show your work. For graphs, use a pencil and straight edge.

1. Given  $A(-2, 5)$  and  $B(4, 1)$ .
  - (a) Plot and label the points on the graph, drawing  $\overline{AB}$
  - (b) Write down the midpoint formula, substituting coordinate values.
  - (c) Find the midpoint's coordinates.
  - (d) Plot and label the midpoint,  $M$ , on the graph.



2. Given  $C(-4, -3)$ ,  $D(2, 5)$ , and  $E(2, -3)$ .
  - (a) Plot and label the points on the graph, drawing  $\overline{CD}$
  - (b) Draw the legs of the right triangle,  $\overline{CE}$  and  $\overline{ED}$ , marking their lengths.
  - (c) Write down the distance formula for  $CD$ , substituting coordinate values.
  - (d) Find the value of  $CD$ .

