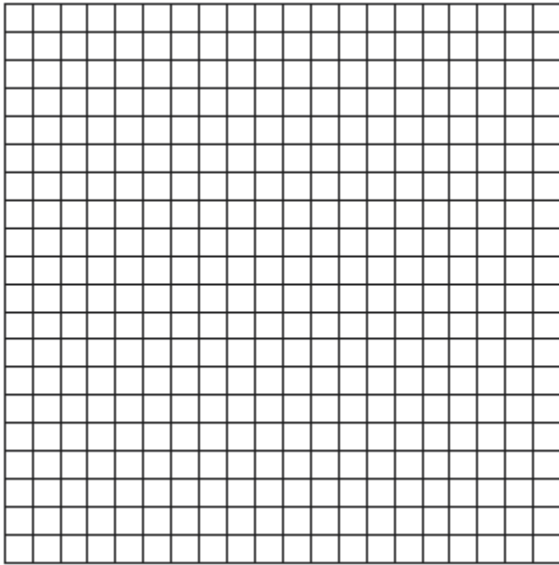


NAME: \_\_\_\_\_

*G.G.68: Find the equation of a line that is the perpendicular bisector of a line segment, given the endpoints of the line segment*

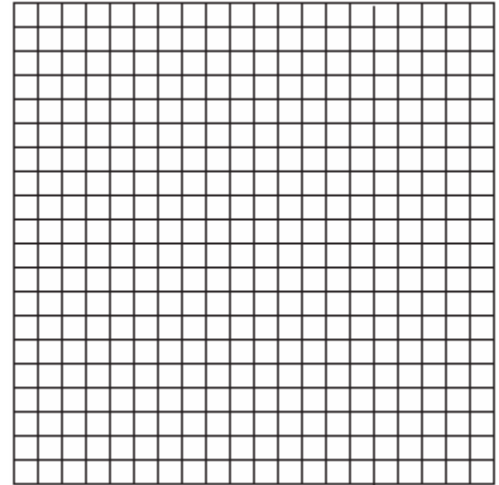
1. 080935ge, P.I. G.G.68

Write an equation of the perpendicular bisector of the line segment whose endpoints are  $(-1,1)$  and  $(7,-5)$ . [The use of the grid below is optional]



2. 080235a, P.I. G.G.68

Determine the distance between point  $A(-1,-3)$  and point  $B(5,5)$ . Write an equation of the perpendicular bisector of  $\overline{AB}$ . [The use of the grid is optional.]



[4]  $y + 2 = \frac{4}{3}(x - 3)$  or an equivalent linear

equation, and appropriate work is shown.

[3] Appropriate work is shown, but one computational or graphing error is made.

or [3] The correct slope and midpoint of the segment and the slope of the perpendicular bisector are found, but no equation or an incorrect equation is written.

[2] Appropriate work is shown, but two or more computational or graphing errors are made.

or [2] Appropriate work is shown, but one conceptual error is made.

or [2] Appropriate work is shown to find the correct slope and midpoint of the segment, but no further correct work is shown.

or [2] Appropriate work is shown to find the slope of the original segment and the slope of the perpendicular bisector, but no further correct work is shown.

[1] Appropriate work is shown, but one conceptual error and one computational or graphing error are made.

or [1] Appropriate work is shown to find the correct slope or midpoint of the segment, but no further correct work is shown.

or [1]  $y + 2 = \frac{4}{3}(x - 3)$  or an equivalent linear

equation, but no work is shown.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously

[1] incorrect procedure.

[4] 10 and  $y - 1 = -\frac{3}{4}(x - 2)$  or an equivalent

equation, and appropriate work is shown.

[3] Appropriate work is shown, but one computational error is made.

[2] Appropriate work is shown, but more than one computational error is made.

or [2] Appropriate work is shown, but one conceptual error is made in determining the distance or the equation of the line.

or [2] The length, the midpoint, and the slope of  $\overline{AB}$  are found correctly, but no equation or an incorrect equation is given for the perpendicular bisector.

or [2] Only a correct equation of the perpendicular bisector is found.

[1] The correct distance is found, but no attempt is made to find the equation of the perpendicular bisector.

or [1] The midpoint and slope of  $\overline{AB}$  are found correctly, but no further correct work is shown.

or [1] The slope of  $\overline{AB}$  and the slope of the perpendicular bisector are calculated correctly.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously

[2] incorrect procedure.