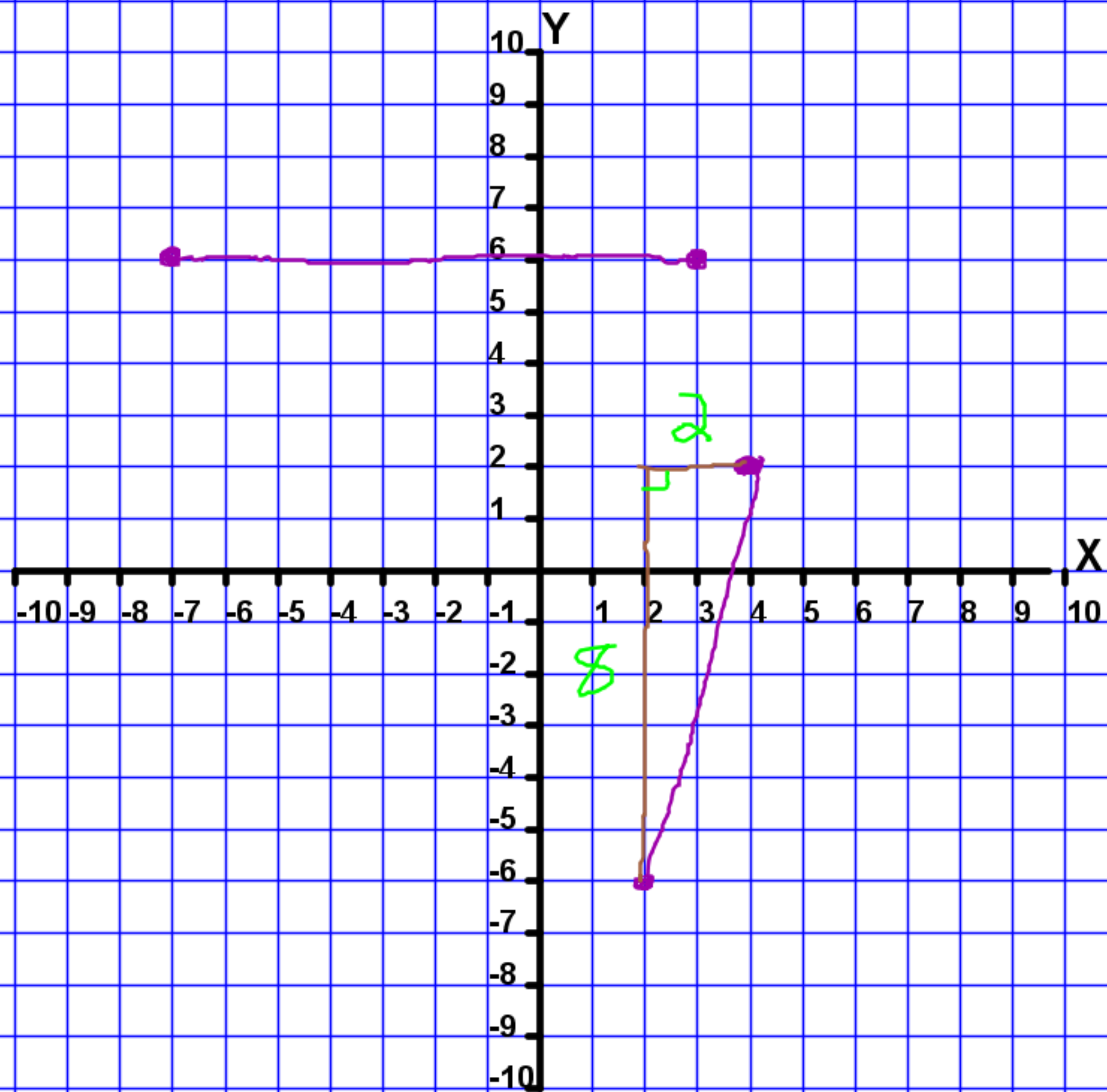


Mathematics 10D

2.2 – Distance of a Line Segment

Mr. D. Hagen



$\rightarrow 10^3?$ Distance is positive
 10
 $a^2 + b^2 = c^2$
 $8^2 + 2^2 = c^2$
 $68 = c^2$
 $\sqrt{68} = c = 8.23$
 $d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$

1) $A(-3, -4), B(5, 7)$

$$d_{AB} = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

$$d_{AB} = \sqrt{(5 - (-3))^2 + (7 - (-4))^2}$$

$$d_{AB} = \sqrt{64 + 121}$$

$$d_{AB} = \sqrt{185} = 13.6$$

$$2) (301, -241), (495, 390)$$

$$d_{CD} = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

$$d_{CD} = \sqrt{(495 - 301)^2 + (390 + 241)^2}$$

$$d_{CD} = \sqrt{37636 + 398161}$$

$$d_{CD} = \sqrt{435797} = 660.15$$