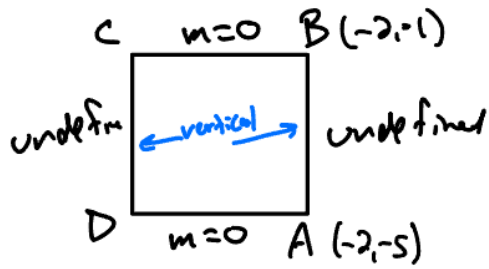


Square Slopes #3 (Mimic 2017 Question 15)

Square ABCD has vertices of $A(-2, -5)$ and $B(-2, -1)$. What is the slope of \overline{CD} ?



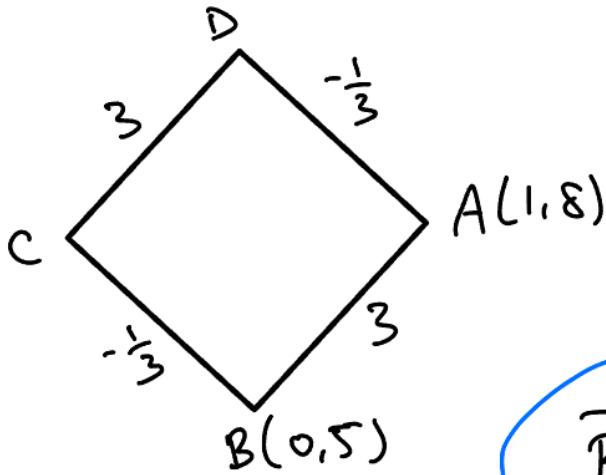
$$m_{\overline{AB}} = \frac{\Delta y}{\Delta x} = \frac{4}{0}$$

$m_{\overline{AB}}$ is undefined

\overline{CD} slope is undefined

Square Slopes #4 (Mimic 2017 Question 15)

Square ABCD has vertices of $A(1, 8)$ and $B(0, 5)$. What is the slope of \overline{BC} ?



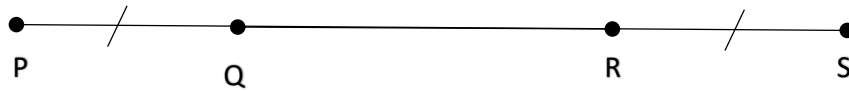
$$m_{\overline{AB}} = \frac{\Delta y}{\Delta x} = \frac{3}{1} = 3$$

\overline{BC} slope is $-\frac{1}{3}$

Problem A

Given $PQ = RS$

Prove: $PR = QS$



Statement	Reason
1 $PQ = RS$	GIVEN
2 $PR = PQ + QR$	Segment Add'n Post
3 $QS = QR + RS$	Segment Add'n Post
4 $PR = RS + QR$	Subst PoE
5 $PR = QS$	Subst PoE
6	
7	

Problem B

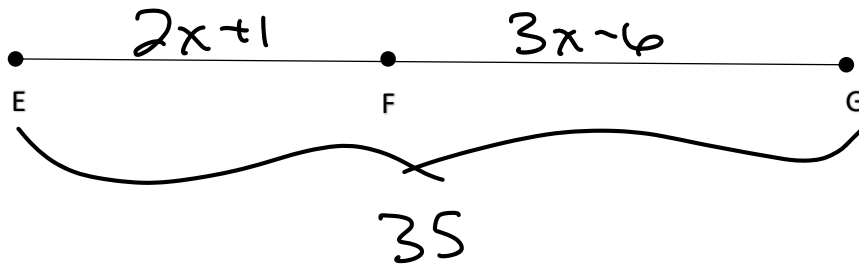
Given: $2(x + 9) = -6$

Solve: $x = -12$

Statement	Reason
1 $2(x + 9) = -6$	GIVEN
2 $2x + 18 = -6$	Dist PoE
3 $2x = -24$	Subtr. PoE
4 $x = -12$	Div'n PoE
5	
6	
7	

Problem C

If F is between E and G, and $EF = 2x + 1$, $FG = 3x - 6$ and $EG = 35$, solve for x.



$$EF + FG = EG$$

$$(2x+1) + (3x-6) = 35$$

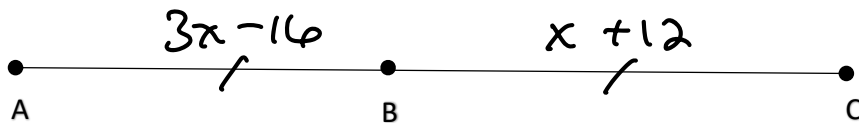
$$5x - 5 = 35$$

$$5x = 40$$

$$x = 8$$

Problem D

If B is the midpoint of \overline{AC} , and $AB = 3x - 16$, and $BC = x + 12$ solve for x.



$$AB = BC$$

$$3x - 16 = x + 12$$

$$2x = 28$$

$$x = 14$$