5.2. Point-Slope form cont. **Dec. 01, 2006**

Recall: Parallel Lines have the Same Slope!! (equations of)

Write the equation of the line in Slope-Int. Form that is Parallel to $y=2x-3$ & it passes through $(3,-1)$

$y=mx+b$ $\quad m=$ ____ $\quad y\text{-int.}=$ ____

But... that is Not what I was given!

equation $y=2x-3$ $\quad$ Point on the line $(3,-1)$ (x_1, y_1)

the equation we are creating is Parallel to the equation Given

∴ the Slopes are the Same : $m=2$

Really, I was given the Slope & Pt. on the line

∴ I can ONLY use the Pt-Slope form

$y-y_1=m(x-x_1)$

$y-(-1)=2(x-3)$

$y+1=2(x-3)$ → This is not the Slope-Int. Form... So... I need to get rid of the 1st grouping symbols, and 2nd get 'y' by itself.

$y+1=2x-6$

$-1 \quad -1$

$y=2x-7$

Check $(3,-1)$ (x,y)

$-1 \stackrel{?}{=} 2(3)-7$

$-1 \stackrel{?}{=} 6-7$

$-1=-1$ ✓

wk.sh. 5.3...

1-3: S-I-F from a graph

Given: 2 Pts & graph

Need: $m = \frac{y_2 - y_1}{x_2 - x_1}$ or $m = \frac{\text{rise}}{\text{run}}$

Need: y-int. ... (actually ... given as one of the points)

4-6: S-I-F from a graph

Given: 2 pts & graph

#4 Scale Different

Need: $m = \frac{y_2 - y_1}{x_2 - x_1}$ or $m = \frac{\text{rise}}{\text{run}}$

Need: y-int... must figure out!

7-12: S-I-F from 2 pts

Given: 2 points only

use... $m = \frac{y_2 - y_1}{x_2 - x_1}$

Use that m & one of the Points w/ $y - y_1 = m(x - x_1)$

Solve for $y = mx + b$

wk. st. 5.4

1-9: S-F.

Simply Solve &/or Move the terms to get it into $Ax+By=C$

10-12: S-F but w/ Fractions

Multiply Everything By the Denom.

(10) $2(y)=2\left(5x-\frac{1}{2}\right)$

$2y=10x-1$

Then Solve for $Ax+By=C$

O.T.L.

⓪ . . . Start New Work on the wk.st. Use Old work to help & save time. Use the mapping to Now Correctly Answer the question...

① Write the Summary Box on Pg 280 at the Bottom

② Pg 281-282: 1-7(a), 14, 19, 24, 25, 35, 37, 39, 40, 41, 42

Turned in ↑ Tue

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