5.2. Point-Slope form cont.

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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 $(3,-1)$

$y=mx+b$ → m = sort-of, y-int = ?

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

equation: $y=2x-3$

point on the line: $(3,-1)$ (x_1, y_1)

∴ therefore

the equation we are creating is parallel to the equation Given

∴ the Slopes are the same at: $m=2$

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

∴ I can only use the Pt-Slope form.

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

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

$y+1=2(x-3)$ → Pt. Slope Form. But I want it in Slope-Int. Form. ∴ Get "y" by itself

1st Do the Dist. prop.

$y+1=2x-6$

$-1 \quad -1$

$y=2x-7$

Check: use... $(3,-1)$

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

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

$-1=-1$ ✓

O.T.L.

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

Title: Dec 1 - 7:50 AM (2 of 2)