Solve the equation below. Justify each step with a reason.
Use the list on p. 37 as a reference.

Statements	Reasons
$3x+2(x-8)=-8$	[Given]
$3x+2x-16=-8$	[Distributive Property]
$5x-16=-8$	[Dist. Prop.]
$5x=8$	[Add. Prop. of =]
$x=\frac{8}{5}$	[Div. Prop. of =]

How can the Properties of Algebra be used to justify steps in a proof?

$n^2=n$ ☆	[Given]
$n^2-n=0$	[Subtr. Prop. of =]
$n(n-1)=0$	[Distrib. Prop.]
$n=0,1$	[Zero Product Prop.]

☆ DON'T Assume

What are the parts of a proof?	What can be used as reasons in a proof?
1 Conditional Statement [Theorem] [Diagram]	Given
2 Given	Definitions
3 Prove	Properties
4 Statements	Postulates
5 Reasons	Theorem

Proof 1: Given: $3y+4=\frac{2y}{3}$

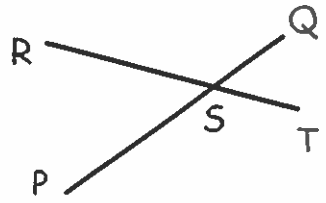
Prove: $y=-\frac{12}{7}$

	Statements	Reasons
1.	$3y+4=\frac{2y}{3}$	Given
2.	$9y+12=2y$	Mult. Prop. of =
3.	$7y+12=0$	Subtr. Prop. of =
4.	$7y=-12$	Subtr. Prop. of =
5.	$y=\frac{-12}{7}$	Div. Prop. of =

Proof 2:

Given: $\overline{RT}$ and $\overline{PQ}$ intersect so that RS = PS and ST = SQ.

Prove: RT = PQ

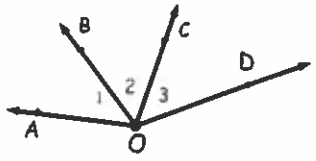


Statements	Reasons
1. $\overline{RT}$ and $\overline{PQ}$ intersect so that RS = PS and ST = SQ.	Given
2. RS + ST = RT PS + SQ = PQ	Seg. Add. Post.
3. RS + ST = PS + SQ	Add. Prop. of = (1 + 1)
4. RT = PQ	Subst. Prop. of = (2 → 3)

Proof 3:

Given: $m\angle AOC = m\angle BOD$

Prove: $m\angle 1 = m\angle 3$



Statements	Reasons
1. $m\angle AOC = m\angle BOD$	Given
2. m∠1 + m∠2 = m∠AOC m∠2 + m∠3 = m∠BOD	∠ Add. Post.
3. m∠1 + m∠2 = m∠2 + m∠3	Subst. Prop. of = (2 → 1)
4. m∠2 = m∠2	Refl. Prop. of =
5. m∠1 = m∠3	Subtr. Prop. of = (3 − 4)

Assignment #13

p. 41-42 WE #6-13

Quiz Corrections due Thursday!
10-1-15

Start Ch 2 Note cards.

In pairs, complete p. 40 CE #11-12 and p. 42 WE #14.

Call me over when you get stuck or if you think you are done.

This is classwork and will be checked off before the end of the period.

You must copy the entire proof for #11, 12, and 14.