READY

Topic: Solving Inequalities.

Use the inequality $-9 < 2$ to complete each row in the table.

Apply each operation to the original inequality $-9 < 2$	Result	Is the resulting inequality true or false?
Example: Add 3 to both sides	-9+3 < 2+3 → -6 < 5	True
1. Subtract 7 from both sides.		
2. Add 15 to both sides.		
3. Add -10 to both sides.		
4. Multiply both sides by 10.		
5. Divide both sides by 5.		
6. Multiply both sides by -6.		
7. Divide both sides by -3.		

8. What operations when performed on an inequality, reverse the inequality?
(Be very specific!)

SET

Topic: Solve literal equations that require more than one step.
Solve for the indicated variable. Show your work!!!

9. Solve for h. $Q = 25\pi h$

10. Solve for h. $Q = \pi r^2 h$

11. Solve for m. $y = 7m + 6$

12. Solve for m. $y = mx + b$

13. Solve for z. $A = (z + 7)3$

14. Solve for z. $A = (z + 7)w$

15. Solve for x. $\frac{x+2}{7} = 4$

16. Solve for x. $\frac{x+2y}{7} = 4$

17. Solve for x. $\frac{2x}{5} - 9 = 6$

18. Solve for x. $\frac{2x}{5} - 9y = 6$

19. Solve for x. $\frac{3}{4}(x - 2) = 12$

20. Solve for x. $\frac{3}{4}(x - 2y) = 12$

GO

Topic: Identifying x-intercepts and y-intercepts

Locate the x-intercept and y-intercept in the table. Write each as an ordered pair.

21.

x	y
-4	12
-3	10
-2	8
-1	6
0	4
1	2
2	0

x – intercept:

y – intercept:

22.

x	y
0	-6
3	-5
6	-4
9	-3
12	-2
15	-1
18	0

x – intercept:

y – intercept:

23.

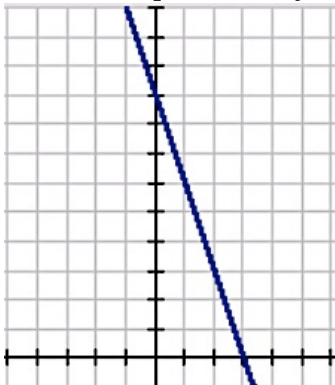| x	y
-3	10
-2	8
-1	6
0	4
1	2
2	0
3	-2

x – intercept:

y – intercept:

Locate the x-intercept and the y-intercept in the graph. Write each as an ordered pair.
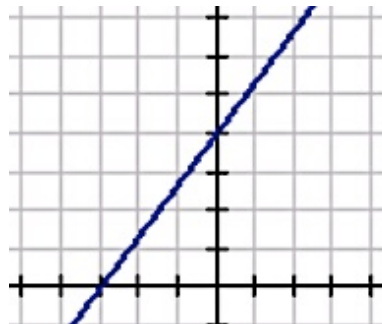
24.

x – intercept:

y – intercept:

25.

x – intercept:

y – intercept:

Solve each equation for x. Provide the justifications for each step. See the first example as a reminder for the types of justifications that might be used.

Example:

$3x - 6 = 15$	Justification
+6 +6	Addition Property of equality
$\dfrac{3x}{3} = \dfrac{21}{3}$	Division Property of equality
x = 7	

26.

$4x - 10 = 2$	Justification

27.

$- 16 = 3x + 11$	Justification

28.

$6 - 2x = 10$	Justification

29.

$6x + 3 = x + 18$	Justification

30.

$3x - 10 = 2x + 12$	Justification

31.

$12x + 3y = 15$	Justification

32.

$X(B + 7) = 9$	Justification