Name: _____ Class: _____ Date: _____ ID: A

Chapter 12 Review - Lessons 1,2,4,5,6,7

Multiple Choice
Identify the choice that best completes the statement or answers the question.

____ 1. Solve $2p + 9 = 27$. Check your answer.
a. $p = 18$
b. $p = 13\frac{1}{2}$
c. $p = 10$
d. $p = 9$

____ 2. Solve $5a - 6 = 34$. Check your answer.
a. $a = 8$
b. $a = 9$
c. $a = 5\frac{3}{5}$
d. $a = 6\frac{4}{5}$

____ 3. Solve $\frac{d}{3} + 5 = 26$. Check your answer.
a. $d = 93$
b. $d = 78$
c. $d = 64$
d. $d = 63$

____ 4. Solve $\frac{b}{6} - 9 = 36$. Check your answer.
a. $b = 270$
b. $b = 271$
c. $b = 216$
d. $b = 162$

____ 5. Solve $5h + 15 - 3h = 32$. Check your answer.
a. $h = 16$
b. $h = 23\frac{1}{2}$
c. $h = 8\frac{1}{2}$
d. $h = 2\frac{1}{8}$

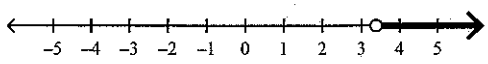
____ 6. Solve $8z + 13 + 7z = 35$. Check your answer.
a. $z = 3\frac{1}{5}$
b. $z = 1\frac{7}{15}$
c. $z = 22$
d. $z = 2\frac{1}{3}$

____ 7. Write an inequality for the situation.
At most 37 papers are on the table.
a. number of papers < 37
b. number of papers ≥ 37
c. number of papers > 37
d. number of papers ≤ 37

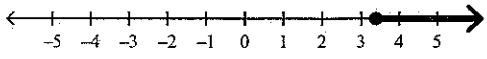
____ 8. Write an inequality for the situation.
Fewer than 39 papers are on the tray.
a. number of papers < 39
b. number of papers > 39
c. number of papers ≥ 39
d. number of papers ≤ 39

____ 9. Graph the inequality $w \geq 3.4$.

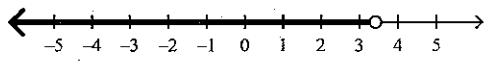
a.



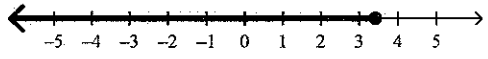
b.



c.

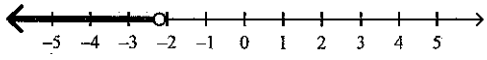


d.

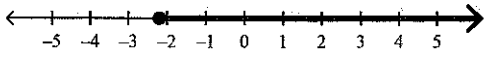


____ 10. Graph the inequality $m \geq -2.2$.

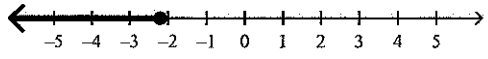
a.



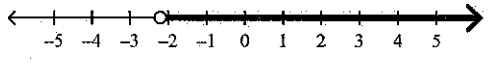
b.



c.



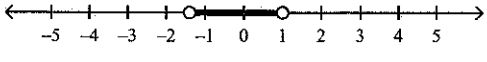
d.



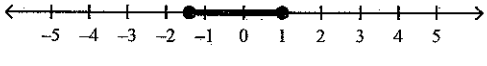
____ 11. Graph the compound inequality.

$-1.4 < z < 1$

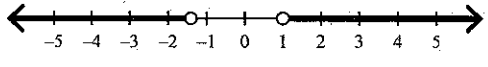
a.



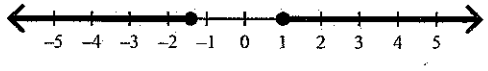
b.



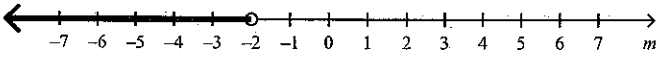
c.



d.



____ 12. Write the inequality shown by the graph.



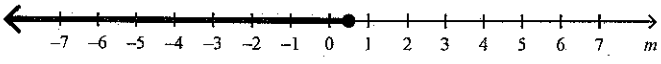
a. $m \leq -2$

b. $m > -2$

c. $m < -2$

d. $m \geq -2$

____ 13. Write the inequality shown by the graph.



a. $m \geq 0.5$

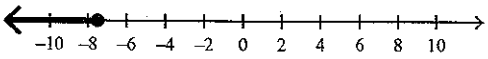
b. $m > 0.5$

c. $m < 0.5$

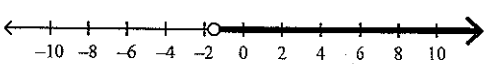
d. $m \leq 0.5$

____ 14. Solve $m - 3 > -4.5$. Then graph the solution set on a number line.

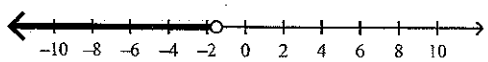
a. $m > -7.5$



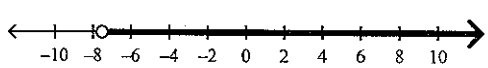
b. $m > -1.5$



c. $m > -1.5$

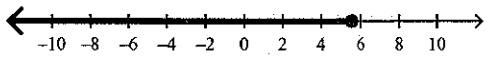


d. $m > -7.5$

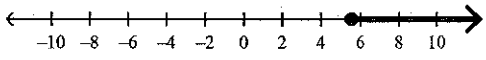


____ 15. Solve $x - 3 \geq 2.5$. Then graph the solution set on a number line.

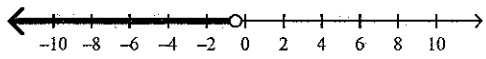
a. $x \geq 5.5$



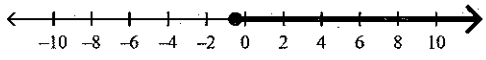
b. $x \geq 5.5$



c. $x \geq -0.5$



d. $x \geq -0.5$



____ 16. Solve $d + 2.5 < -4$. Check your answer.

a. $d > -1.5$
b. $d < -6.5$
c. $d > -6.5$
d. $d < -1.5$

____ 17. Solve $a + 3 > 0.6$. Check your answer.

a. $a < -2.4$
b. $a > -2.4$
c. $a > 3.6$
d. $a < 3.6$

____ 18. Solve $\frac{y}{3} > 0.6$. Check your answer.

a. $y > 0.2$
b. $y < 0.2$
c. $y < 1.8$
d. $y > 1.8$

____ 19. Solve $\frac{m}{-7} \geq -1.4$. Check your answer.

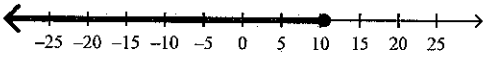
a. $m \leq 0.2$
b. $m \geq 0.2$
c. $m \geq 9.8$
d. $m \leq 9.8$

____ 20. Solve $-7y \leq 40$. Check your answer.

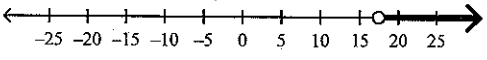
a. $y \geq -5\frac{5}{7}$
b. $y \leq -280$
c. $y \geq -280$
d. $y \leq -5\frac{5}{7}$

____ 21. Solve $\frac{y}{-7} - 0.5 \geq -2$. Then graph the solution set on a number line.

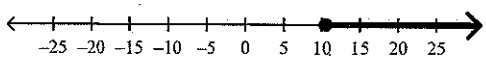
a. $y \leq 10.5$



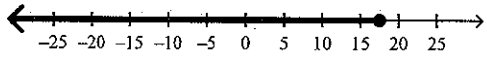
b. $y \geq 17.5$



c. $y \geq 10.5$

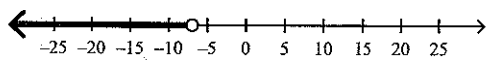


d. $y \geq 17.5$

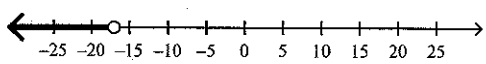


____ 22. Solve $\frac{d}{2} - 2.5 < -6$. Then graph the solution set on a number line.

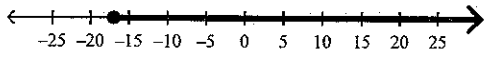
a. $d < -7$



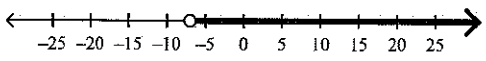
c. $d < -17$



b. $d > -17$



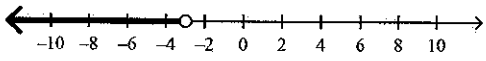
d. $d > -7$



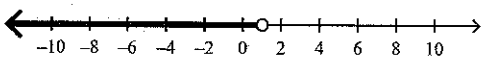
____ 23. Solve and graph.

$n - 8 + 3n < -4$

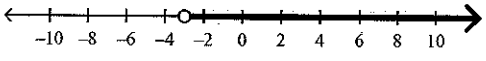
a. $n < -3$



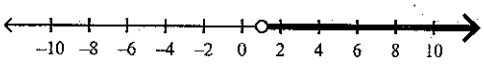
c. $n < 1$



b. $n > -3$



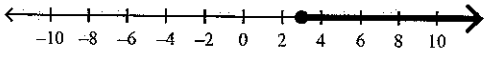
d. $n > 1$



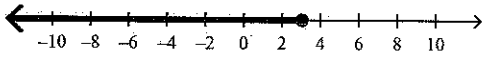
____ 24. Solve and graph.

$-2b + 4 + 3b \leq -1$

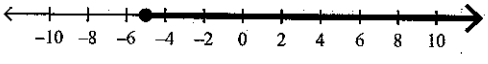
a. $b \leq 3$



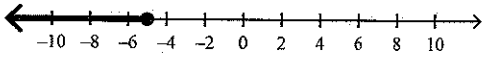
c. $b \geq 3$



b. $b \leq -5$



d. $b \leq -5$



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Chapter 12 Review - Lessons 1,2,4,5,6,7

Multiple Choice

Identify the choice that best completes the statement or answers the question.

D 1. Solve $2p + 9 = 27$. Check your answer.

a. $p = 18$
b. $p = 13\frac{1}{2}$
c. $p = 10$
d. $p = 9$

2-step equation – No like terms

$2p + 9 = 27$ inverse op

$-9 \quad -9$

$2p = 18$

$\div 2 \quad \div 2$

$p = 9$

A 2. Solve $5a - 6 = 34$. Check your answer.

a. $a = 8$
b. $a = 9$
c. $a = 5\frac{3}{5}$
d. $a = 6\frac{4}{5}$

No Like terms

2-step equation

$5a - 6 = 34$

$+6 \quad +6$

$5a = 40$

$\div 5 \quad \div 5$

$a = 8$

D 3. Solve $\frac{d}{3} + 5 = 26$. Check your answer.

a. $d = 93$
b. $d = 78$
c. $d = 64$
d. $d = 63$

No Like terms

2-step eq.

$\frac{d}{3} + 5 = 26$

$-5 \quad -5$

$3 \cdot \frac{d}{3} = 21 \cdot 3$

$d = 63$

A 4. Solve $\frac{b}{6} - 9 = 36$. Check your answer.

a. $b = 270$
b. $b = 271$
c. $b = 216$
d. $b = 162$

No Like terms

2-step eq.

$\frac{b}{6} - 9 = 36$

$+9 \quad +9$

$\frac{b}{6} = 45$

$6 \cdot \frac{b}{6} = 45 \cdot 6$

$b = 270$

C 5. Solve $5h + 15 - 3h = 32$. Check your answer.

a. $h = 16$
b. $h = 23\frac{1}{2}$
c. $h = 8\frac{1}{2}$
d. $h = 2\frac{1}{8}$

like terms ✓

$5h - 3h$

$2h$

$2h + 15 = 32$

$-15 \quad -15$

$2h = 17$

$\div 2 \quad \div 2$

$h = 8\frac{1}{2}$

B 6. Solve $8z + 13 + 7z = 35$. Check your answer.

a. $z = 3\frac{1}{5}$
b. $z = 1\frac{7}{15}$
c. $z = 22$
d. $z = 2\frac{1}{3}$

like terms ✓

$15h + 13 = 35$

$-13 \quad -13$

$15h = 22$

$\div 15 \quad \div 15$

$h = \frac{22}{15} = 1\frac{7}{15}$

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D 7. Write an inequality for the situation. At most 37 papers are on the table.

At most = 37 or less $p \leq 37$

a. number of papers < 37
b. number of papers ≥ 37
c. number of papers > 37
d. number of papers ≤ 37

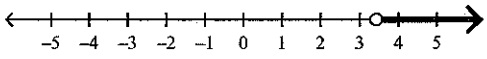
B 8. Write an inequality for the situation. Fewer than 39 papers are on the tray.

fewer than (not equal to) $p < 39$

a. number of papers < 39
(b.) number of papers > 39
c. number of papers ≥ 39
d. number of papers ≤ 39

B 9. Graph the inequality $w \geq 3.4$. filled in circle shaded to right

a.



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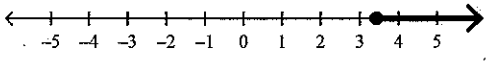

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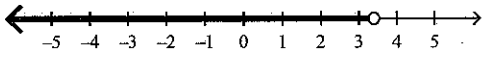
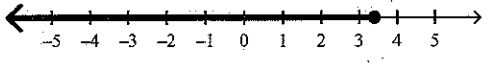
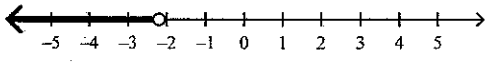


d.

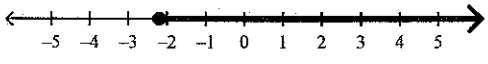


B 10. Graph the inequality $m \geq -2.2$. filled in circle shaded to right

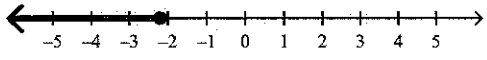
a.



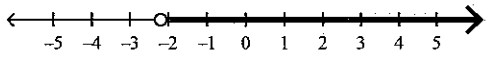
(b.)



c.



d.



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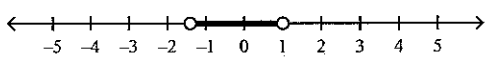
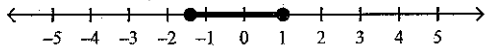
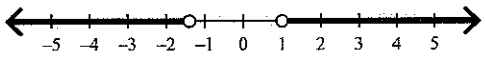
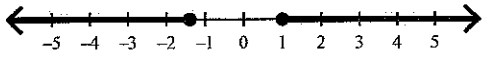
A 11. Graph the compound inequality. open circles - shaded between
$-1.4 < z < 1$

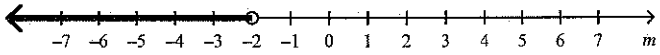
a. 

b. 

c. 

d. 

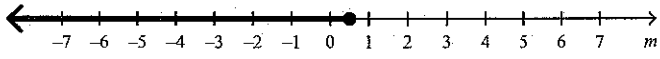
C 12. Write the inequality shown by the graph.



a. $m \le -2$
b. $m > -2$
c. $m < -2$
d. $m \ge -2$

shaded < -2
$m < -2$

D 13. Write the inequality shown by the graph.

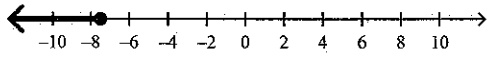


a. $m \ge 0.5$
b. $m > 0.5$
c. $m < 0.5$
d. $m \le 0.5$

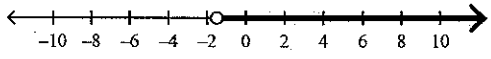
shaded ≤ 0.5
$m \le 0.5$

B 14. Solve $m - 3 > -4.5$. Then graph the solution set on a number line. no like terms

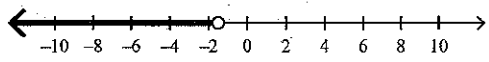
a. $m > -7.5$



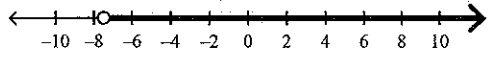
b. $m > -1.5$



c. $m > -1.5$



d. $m > -7.5$



$m - 3 > -4.5$
$+3 \quad +3$
$m > -1.5$

$-4.5 + 3$
-1.5

open circle shade to right

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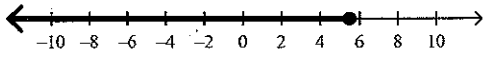
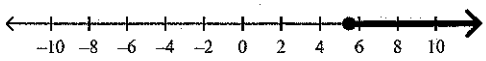
B 15. Solve $x - 3 \geq 2.5$. Then graph the solution set on a number line. no like terms

$x - 3 \geq 2.5$
$+3 \quad +3$
$x \geq 5.5$ filled in shade to right

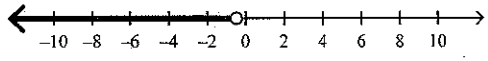
a. $x \geq 5.5$



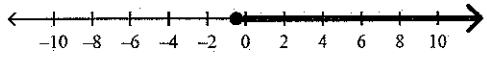
b. $x \geq 5.5$



c. $x \geq -0.5$



d. $x \geq -0.5$



B 16. Solve $d + 2.5 < -4$. Check your answer. no like terms

$d + 2.5 < -4$
$-2.5 \quad -2.5$
$d < -6.5$

$-4 - 2.5$
$-4 + -2.5$
-6.5

a. $d > -1.5$
b. $d < -6.5$
c. $d > -6.5$
d. $d < -1.5$

B 17. Solve $a + 3 > 0.6$. Check your answer. no like terms

$a + 3 > 0.6$
$-3 \quad -3$
$a > -2.4$

$0.6 - 3$
$0.6 + -3$
Subtract
3.0
-0.6
2.4 make it neg.

a. $a < -2.4$
b. $a > -2.4$
c. $a > 3.6$
d. $a < 3.6$

D 18. Solve $\frac{y}{3} > 0.6$. Check your answer. no like terms

$3 \cdot \frac{y}{3} > 0.6 - 3$
$y > 1.8$

a. $y > 0.2$
b. $y < 0.2$
c. $y < 1.8$
d. $y > 1.8$

D 19. Solve $\frac{m}{-7} \geq -1.4$. Check your answer.

$(-7) \cdot \frac{m}{-7} \leq -1.4 \cdot (-7)$ flip symbol
$m \leq 9.8$

a. $m \leq 0.2$
b. $m \geq 0.2$
c. $m \geq 9.8$
d. $m \leq 9.8$

A 20. Solve $-7y \leq 40$. Check your answer.

$-7y \leq 40$ flip symbol
$\div -7 \quad \div -7$
$y \geq \frac{-40}{7}$
$y \geq -5\frac{5}{7}$

a. $y \geq -5\frac{5}{7}$
b. $y \leq -280$
c. $y \geq -280$
d. $y \leq -5\frac{5}{7}$

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A no like terms

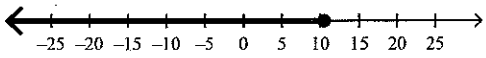
21. Solve $\frac{y}{-7} - 0.5 \geq -2$. Then graph the solution set on a number line.

$\frac{y}{-7} - 0.5 \geq -2$
$+0.5 \quad +0.5$

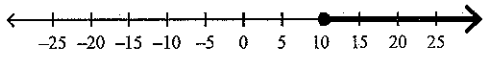
$(-7)\frac{y}{-7} \leq -1.5 \cdot (-7)$

$y \leq 10.5$

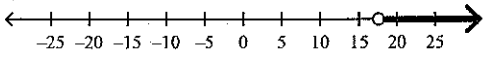
a. $y \leq 10.5$



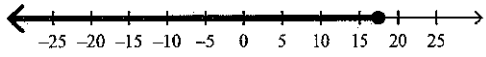
c. $y \geq 10.5$



b. $y \geq 17.5$



d. $y \geq 17.5$



A no like terms

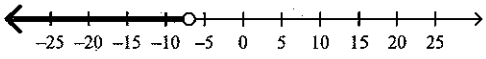
22. Solve $\frac{d}{2} - 2.5 < -6$. Then graph the solution set on a number line.

$\frac{d}{2} - 2.5 < -6$
$+2.5 \quad +2.5$

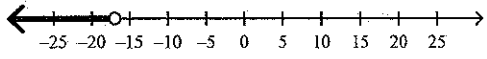
$(2)\frac{d}{2} < -3.5(2)$

$d < -7$

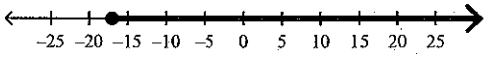
a. $d < -7$



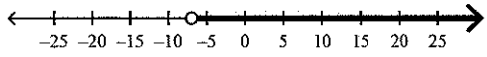
c. $d < -17$



b. $d > -17$



d. $d > -7$



C like terms

23. Solve and graph.

$n - 8 + 3n < -4$

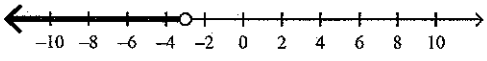
$n + 3n$
$1n + 3n$
$4n$

$4n - 8 < -4$
$+8 \quad +8$

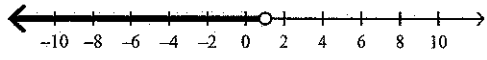
$4n < 4$
$\div 4 \quad \div 4$

$n < 1$

a. $n < -3$

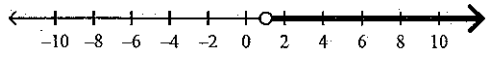


c. $n < 1$



b. $n > -3$

d. $n > 1$

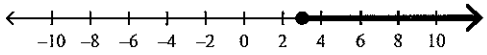


Name: _____ **ID: A**

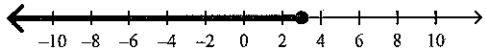
D 24. Solve and graph. like terms

$-2b + 4 + 3b \leq -1$

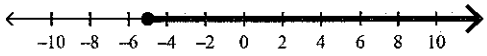
a. $b \leq 3$



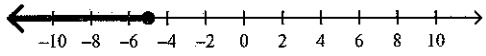
c. $b \geq 3$



b. $b \leq -5$



d. $b \leq -5$



$-2b + 3b$

$1b$

$1b + 4 \leq -1$

$-4 \quad -4$

$-1 - 4$

$-1 + -4$

$1b \leq -5$

$\div 1 \quad \div 1$

$b \leq -5$