

Review Sheet up to Lesson 56

Name: _____

Algebra 1 Accelerated

SHOW YOUR WORK

Graph:

1. $3x + 4y = 12$

2. $2x - y = 4$

3. Given the sets $A = \{0, 3, 7, 8\}$, $B = \{3, 8\}$, and $C = \{0, 1, 3, 5\}$, tell which of the following statements are true and which are false.

a) $8 \in C$ b) $3 \in B$ c) $5 \in C$ d) $3 \notin B$

4. Represent the following numbers as being members of set M :

$-3, -6, -2, -3, -5, -7, -1, -5, -6, -6, -7, -4, -1$

Simplify:

5. $\frac{\frac{1}{a+b}}{\frac{1}{c}}$

6. $\frac{\frac{c}{e}}{c+d}$

7. Solve the system by the substitution method.

$$x = 3y + 6$$

$$3x + y = -42$$

8. Use six unit multipliers to convert 36 cubic inches to cubic yards.

9. Simplify. Write the answers with all variables in the denominator.

a) $(2^0 x^{-4} y^3 z^4)^{-2}$ b) $\left(\frac{5^0 x^4 z^{-3}}{y^{-1}}\right)^{-4}$

10. The average of the first 6 weights was 28 ounces. The average of the next 9 weights was 38 ounces. What was the overall average of the weights?

11. Add: $\frac{6}{d-e} - \frac{3}{d}$

12. Graph: $y = -5x - 5$

13. Multiply: $(x-5)(x^2-4x+3)$

14. Add: $(7x^4 + 7x^3 - 5x - 9) - (-3x^4 - 7x^3 - 9)$

15. Find the degree: $5d^8e^4 - 5d^7e^5 - 11d^8e^5 - 3de^6 - 15d^9e$

16. Find 150% of 50.

17. Solve for y : $5x - y + 3 = x + 5y$

18. Evaluate: $\frac{1}{x^{-4}} + |-x^2|(-x^2) - \sqrt[3]{y}$ if $x = \sqrt[3]{27}$ and $y + 4 = 12$

19. Expand by using the distributive property. Write the answer with all positive exponents.

$$\frac{x^3y^0z}{w^{-5}} \left(\frac{w^{-2}z^0}{z} + \frac{w^{-2}x^{-2}z^{-2}}{z^2} \right)$$

20. The ratio of rats to mice was 6 to 11. If there were 3247 in all, how many were mice?

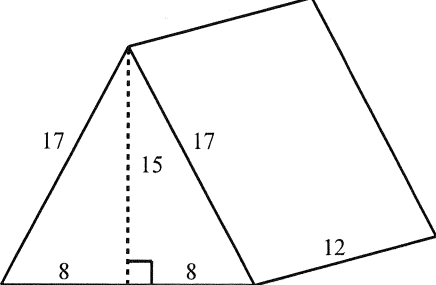
21. Draw a number line and graph the solution to $x \geq -6$.

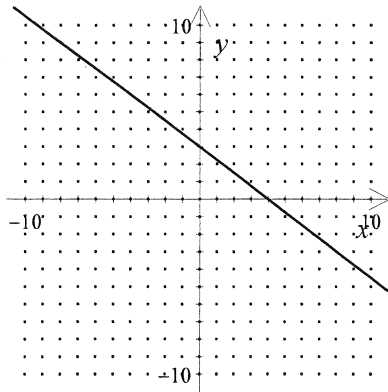
22. Simplify: $\frac{-8(-2)^{-2} + 64(-4)^{-2}}{2^2 - [-(4)] - 5}$

23. Simplify (factor if necessary): $\frac{16x^3y^6z^2 + 16x^4y^4z}{4x^3y^4z}$

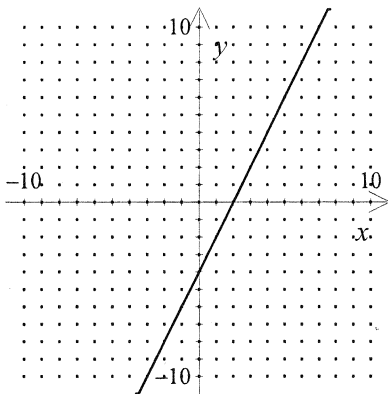
24. Solve: $-[-|-4|(-1-x) - 2^2] = -[(8+x) - 5x]$

25. Find the surface area of the triangular prism. Dimensions are in meters.





[1] _____



[2] _____

[3] a) false b) true c) true d) false

[4] $M = \{-7, -6, -5, -4, -3, -2, -1\}$

[5] $\frac{c}{a+b}$

[6] $\frac{c^2 + cd}{e}$

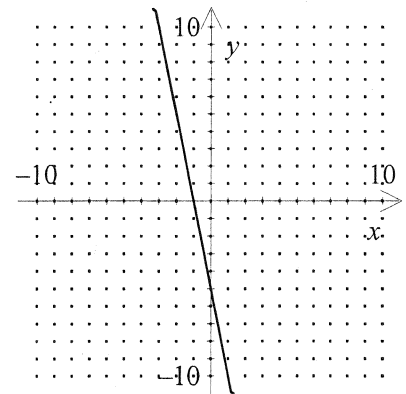
[7] $(-12, -6)$

[8] $36 \left(\frac{1}{12}\right)^3 \left(\frac{1}{3}\right)^3 \text{ yd}^3$

[9] a) $\frac{1}{x^{-8}y^6z^8}$ b) $\frac{1}{x^{16}y^4z^{-12}}$

[10] 34 ounces

[11] $\frac{3d - 3e}{d^2 - de}$



[12] _____

[13] $x^3 - 9x^2 + 23x - 15$

[14] $10x^4 + 14x^3 - 5x$

[15] 13

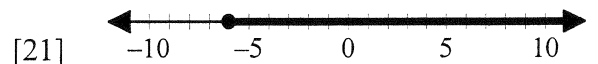
[16] 75

[17] $y = \frac{4x + 3}{6}$

[18] -2

[19] $w^3x^3 - \frac{w^3x}{z^3}$

[20] 2101



[21] _____

[22] $-\frac{1}{8}$

[23] $4y^2z + 4x$

[24] 1

[25] 840 m²