

1. Add. Write the answer with all exponents positive. $x^2y^{-2} + 7z^{-3}$

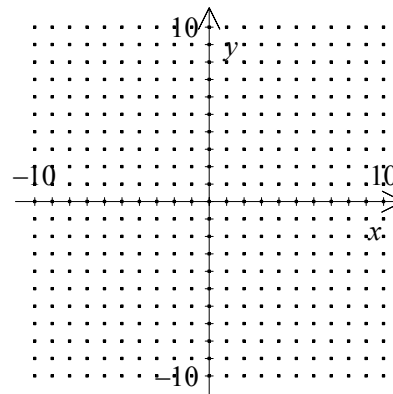
[1] _____

2. Represent the following numbers as being members of set M :
 $0, -2, -4, -1, 1, -2, 0, -6, -5, -1, -3, -2$

[2] _____

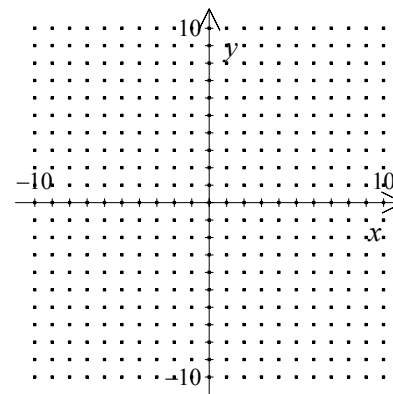
Graph:

3. $y = -3x - 6$



[3] _____

4. $4x - y = 8$



[4] _____

5. Simplify: $\frac{\frac{b}{d}}{\frac{1}{b+c}}$

[5] _____

6. Add: $\frac{3}{a+b} - \frac{5}{b}$

[6] _____

7. Simplify: $\frac{\frac{a}{c}}{\frac{d}{c+a}}$

[7] _____

8. Solve the system by the substitution method.

$$x = 9y + 4$$

$$5x + y = -72$$

[8] _____

9. Simplify. Write the answer with all positive exponents. $\frac{-27x^3y^{-2}(x^2)^{-2}y^2x^2y}{(-3x^0)^2x^4y^{-2}(5x^{-2}y^{-4})^0}$

[9] _____

10. Use six unit multipliers to convert 57,000 cubic inches to cubic meters.

[10] _____

11. Add: $\frac{3}{p} + \frac{2}{p-q} - 3$

[11] _____

12. The average of the first 3 numbers was 29. The average of the next 12 numbers was 39. What was the overall average of the numbers?

[12] _____

13. Find the degree: $5x^6y^7 + 8x^5y^8 - 11x^6y^8 + 10xy^9 - 12x^7y$

[13] _____

14. Add. Write the answer in descending order of the variable.
 $(-3x^2 + 7x^5 - 3) + (9x^5 + 9 - 3x^2)$

[14] _____

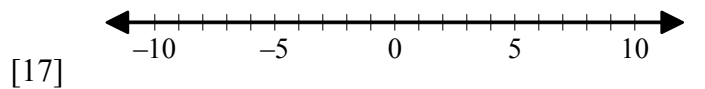
15. Multiply: $(4x^2 - 5)^2$

[15] _____

16. 210 is 20% of what number?

[16] _____

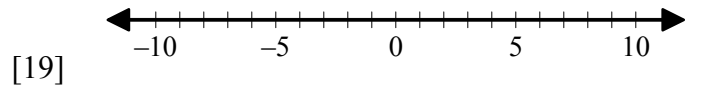
17. Graph: $4 < x \leq 7$



18. Solve $8x - 5y = 5$, for y .

[18] _____

19. Graph: $-5 \leq x < 5$



20. Factor the greatest common factor of $45x^3y^5p + 72x^2y^4p^2 + 27x^5y^7p + 36x^2y^4p$.

[20] _____

21. The ratio of sailors to pirates was 2 to 11. If there were 176 pirates, how many sailors were there?

[21] _____

22. Find a number such that 18 more than twice the number is 10.

[22] _____

23. Expand by using the distributive property: $5m^2n^3(5m^{-1}n^2 - 4m^2n^{-2})$

[23] _____

24. Simplify. Write the answer with all positive exponents. $\frac{xx^2y^4z^{-4}}{z^{-1}z^{-2}y^{-1}}$

[24] _____

Bonus!!!

25. A ski club planned a trip to Squaw Valley, and 145 of the members signed up. If 50% of the members did not sign up, how many members does the club have?

[25] _____