

**Quiz I.**

1. Reduce to lowest terms:  $\frac{28}{120}$ .
2.  $\left(\frac{2}{7}\right) + \left(\frac{1}{5}\right) =$
3.  $\left(\frac{2}{7}\right) \times \left(\frac{1}{5}\right) =$
4.  $\left(\frac{2}{7}\right) \div \left(\frac{1}{5}\right) =$
5. Change into fractions with common denominators and arrange in increasing order of magnitude:

$$\frac{4}{7}; \quad \frac{2}{3}; \quad \frac{5}{12}.$$

6. Convert to a decimal:  $\frac{5}{11}$ .
7. Convert to a fraction: 0.105.
8. Subtract:  $12.12 - 5.17$ .
9. Multiply:  $12.12 \times 5.17$ .
10. Divide:  $12.12 \div 2.2$ .

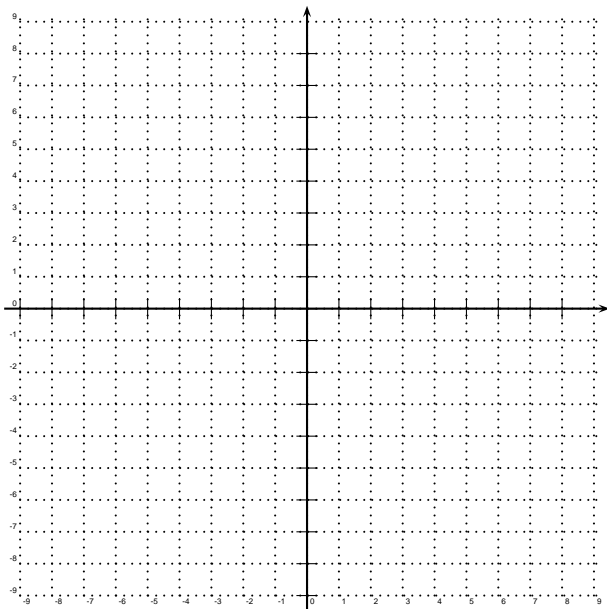
**Quiz II.**

11.  $\frac{1^2 + 2^2 + 3^2 - (1)(2) - (2)(3) - (3)(1)}{1^3 + 2^3 + 3^3 - 3(1)(2)(3)} =$
12.  $2 \cdot (-4) + (3 \cdot (-2) + 1)^2 =$
13. Collect like terms:  $c + a - 2b + 5a - 3b - c$
14. Collect like terms:  $2(3 - a) - 3(2a - 1)$
15. Collect like terms:  $2(x^2 - 2x + 2) - 3(x - 2x^2 + 2)$
16. If  $2(x - 3) = 3(1 - x)$  then  $x =$
17. If  $\frac{2x}{3} - 1 = -5$  then  $x =$
18. If  $2ax - b = 5b$  then  $x =$
19. If  $\frac{x}{a} + 1 = 2$  then  $x =$
20. If  $\frac{x - 1}{2} = \frac{2 - x}{3}$  then  $x =$

**Quiz III.**

21. If  $ax - b = 4b$  then  $x =$
22. The sum of three consecutive integers is 183. What is the middle number?
23. Peter, Paul, and Mary have \$56 between them. Peter has five times as much as Paul, and Mary has twice as much as Paul. How much money does Mary have?

24. When a number is tripled and to this result is added 7, one obtains  $-29$ . What is the number?
25. Graph the solution set to  $-2x \leq 3 - 5x$ .
26. A drunk ambulates from  $(-1, 2)$  and goes two units up, three right, three down, and five left. What are his new coordinates?
27. What is the  $x$ -intercept of the line  $y = -2x + 3$ ?
28. What is the  $y$ -intercept of the line  $y = -2x + 3$ ?
29. Fill in the table below and use the grid provided to draw the line  $y = -2x + 3$ .



$x$	$y$
0	
	1
$-1$	

30. If  $(a - 1, a + 2)$  is on the line  $y = -2x + 3$ , then  $a =$

**Quiz IV.**

31. If  $x = 2$  and  $y = 1 - 2x$ , find  $y$ .
32. If  $x = 2$  and  $3x + 2y = 1$ , find  $y$ .
33. If  $x = 2y + 1$  and  $y = 2x + 1$ , find  $x$  and  $y$ .
34. If  $x + 2y = 3$ ;  $2x + y = 0$  then  $(x, y) =$
35. If  $2x + 3y = -1$ ;  $3x - 2y = 5$  then  $(x, y) =$
36. Multiply and collect like terms:  $(x + 5)(x - 4)$
37. Simplify and write with positive exponents only:  $(x^9y^4)(x^3y^2)$
38. Simplify and write with positive exponents only:  $(x^{-1}y^3z^{-2})^{-2}$
39. Multiply and collect like terms:  $(a - 1)(a + 1) - (a + 2)(a - 2)$
40. Multiply and collect like terms:  $-2x^2(x^2 - 2)$

**Quiz V.**

41. Simplify and write with positive exponents only:  $\frac{x^9y^4}{x^3y^2}$

42. Simplify and write with positive exponents only:  $\frac{x^9 y^2 z^4}{x^3 y^4 z^{-2}}$

43. Divide:  $(8x^5 - 4x^3) \div (-2x^2)$ .

44. Divide:  $(x^3 - 8) \div (x - 2)$ .

45. Divide:  $(x^4 - 16) \div (x + 2)$ .

46. Factor  $2x^2 - 5x$ .

47. Solve the equation  $2x^2 - 5x = 0$  for  $x$ .

48. Factor  $2x^2 - 5x - 3$ .

49. Solve the equation  $2x^2 - 5x - 3 = 0$  for  $x$ .

50. Factor  $10x^2 - 23x + 12$ .