



Name _____ Period _____

Math6

Expressions & Equations Review Packet

Evaluate each expression to find the missing values in the tables.

1.

z	$z + 20$
7	
19	
15	

2.

f	$3f$
5	
0	
2	

3.

s	$s \div 2$
16	
28	
50	

4.

m	$m \div 3$
15	
51	
108	

5.

x	$x^2 + 5$
10	
1.5	
7	

6.

y	$y + 5$
8	
50	
2.25	

Solve each addition equation algebraically. SHOW ALL WORK.

7. $d + 101 = 200$

$d =$ _____

8. $t + 6 = 33$

$t =$ _____

9. $y + 2.3 = 10$

$y =$ _____

10. $9.6 = 5.2 + g$

$g =$ _____

11. $73 = c + 35$

$c =$ _____

12. $z + 98 = 116$

$z =$ _____

Solve each subtraction equation algebraically. SHOW ALL WORK.

13. $8 = n - 3$

$n =$ _____

14. $h - 21 = 19$

$h =$ _____

15. $r - 19 = 37$

$r =$ _____

16. $24 = j - 2$

$j =$ _____

17. $b - 23 = 14$

$b =$ _____

18. $e - 300 = 3$

$e =$ _____



Solve each multiplication equation algebraically. SHOW ALL WORK.

19. $3t = 12$

20. $14g = 70$

21. $4\frac{1}{2}z = 22.5$

$t =$ _____

$g =$ _____

$z =$ _____

22. $22y = 440$

23. $13.5 = 3m$

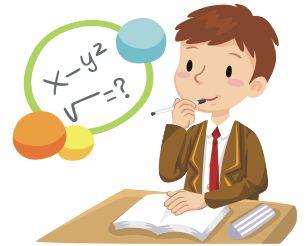
24. $14v = 0$

$y =$ _____

$m =$ _____

$v =$ _____

Solve each division equation algebraically. SHOW ALL WORK.



25.

$$\frac{m}{2} = 30$$

26.

$$\frac{d}{5} = 9$$

27.

$$\frac{x}{3.5} = 5$$

$m =$ _____

$d =$ _____

$x =$ _____

28.

$$\frac{s}{15} = 11$$

29.

$$\frac{p}{6} = 7$$

30.

$$\frac{c}{4} = 27$$

$s =$ _____

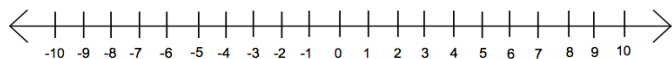
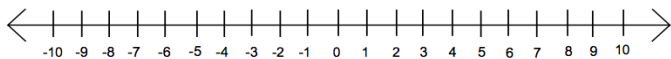
$p =$ _____

$c =$ _____

Graph each inequality.

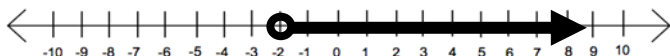
30a. $w \geq -8$

30b. $5 < a$



31. Write an inequality for the graphs below.

a)



Inequality: _____

b)



Inequality: _____

32. **Complete each table and write an equation to represent the rule. (3 pts each). Then, name the independent and dependent variable in each table (1 pt ea)**

x	y
3	12
5	20
7	28
9	
	48

x	y
4	19
6	21
8	23
10	
	72



Equation: _____

Equation: _____

Independent Var: _____

Independent Var: _____

Dependent Var: _____

Dependent Var: _____

Complete the table by expanding or combining each expression.

	Expanded Terms	Combined Terms
33.	$5a + a + 9 - 3a - 8$	
34.	$2k + 3k + k - 4k$	
35.	$k + k + k + k + k$	
36.	$5g + 3h + 6f - g + 4h - 3f$	
37.	$g + h + h + h + g + g + g$	
38.	$4m + 3n + 5 - m + 8n - 3$	

Solve each expression by substituting in the named value for each variable.

	$2 + j$	j^3	$2j + 3$
39. $j = 1$			
40. $j = 4$			
41. $j = 2.5$			

Use the distributive property on each expression, and then solve: SHOW ALL WORK.

42. $3(2x + 6)$

43. $7(5p + 4) + 2p$

44. $5(10 + 2b)$

45. $6(4g + 7) - 18$

46. $4(x + 7) + 1$

Factor each expression. Remember to find the GCF in these problems:

47. $12a + 18$

48. $30y + 70$

49. $15j + 20k - 140$

50. $17w + 51$

51. $8t - 16$

Write an expression, equation, or inequality based on the sentence, phrase, or word problem

52. You must be at least 12 years old to enter the arcade. _____

53. The product of w and 82. _____

54. There were d dogs in the pen. Two got out and now there are 18. _____