Key

Algebra Test Review ☺

Please also review your math spiral, math textbook (pages 164-167, 124-125, and 128-129)

Name: _____

Number: _____

Solve for the variable.

inverse operations

1. $y - 5 = 0$ (+5 +5) y= 5
2. $7 + y = 12$ (−7 −7) y= 5
3. $8 + y = 11$ (−8 −8) y= 3
4. $y - 9 = 12$ (+9 +9) y= 21

multiplication

5. Isaiah earns $8 for every cup he sells. Fill out the function table if he sells 12, 13, and 14 cups. Use g for the input variable and y for the output variable.

g	8g = y	y
12	8 · 12 = y	$96
13	8 · 13 = y	$104
14	8 · 14 = y	$112

6. Solve using PEMDAS: $7 + (10-1) \div 3 + 5$

$7 + 9 \div 3 + 5$

$7 + 3 + 5$

15

7. Write an equation for $60 split among 3 friends. Use f for your variable.

$3f = 60$

$3 \times f = 60$

*Try to avoid putting the variable alone.
→ Like $60 \div 3 = f$

8. Abby has a coupon for $8 off the price of an item. If k represents the original price of a shirt, write an expression that tells Abby's cost when she uses the coupon. → no equal sign

$k - 8$

9. Mrs. Batten has 42 yards of fabric. She uses 8 yards for a project and then buys 4 more yards from the fabric store. Write a number sentence can be used to show the amount of fabric she has left. no equal sign

$42 - 8 + 4$ no equal signs

Write an algebraic expressions for each of the following (use n for your variable):

10. four times a number, plus 12

$4n + 12$

11. seven less than a number times 3

$3n - 7$

12. fourteen minus three times a number

$14 - 3n$

Divide using Standard Algorithm:

13. 5,456 ÷ 24 =

$24 \times 6 = 144$, $24 \times 7 = 168$

$24 \overline{)5456}$ → 227 R8

-48

65

-48

176

-168

8

Divide using Compatible Numbers:

14. 3,527 ÷ 72 =

$3527 \div 72$

$3500 \div 70$

50 ☺

15. Finish the Function Table:

b	7b + 8 = m	m
2	7x2+8=m	22
3	7x3+8=m	29
4	7x4+8=m	36

16. One of the American lizard's favorite foods is ants. It can eat up to 60 ants per minute. How long would it take it to eat 540 ants?

540÷60 = 9 minutes

17. Solve. 12/n if n = 4. 3

18. Show an equation that models Distributive Property.

24 X 8 = (20 + 4) X 8 OR
24 X 8 = (20 X 8) + (4 X 8)

19. Fill in the part-part-whole diagram to represent the following equation:

H – 15 = y

y	15
H	

82 | 246 → 3

82 | 246

Write an integer that represents the following situations:

20. Jen earned 9 points. +9 does not require a + sign

21. I dropped off 17 friends. -17 ↑ DOES require a negative sign

22. Solve using standard algorithm

4,442 ÷ 19 = 233 R 15

19 | 4442
-38
64
-57
72
-57
15

23. Suzanne bought 4 boxes of cookies for a party. Each box contained 75 cookies. Write a number sentence that could be used to find out how many cookies were left if 3 dozen were eaten at the party.

(4 X 75) – (3 X 12)

24. Review the Order of Operations Diagram in your math spiral. Make sure you understand what each operation is. → Review Notes

P E M D A S

25. Fill in the multiplication diagram to match the following equation:

3b = 90

b	b	b
90		

Solve using standard algorithm (decimal must be very clear in your final answer).

26. 8.6 X 2.7 = 23.22

27. 24.6 ÷ 8.2 = 3

28. Fill in the missing blanks regarding the Distributive Property:

87 X 30 = 30 (90 - 3)
= (30 X 90) - (30 X 3)
= 2700 - 90
= 2610