Name: _____ Period: _____ Date: _____

Course 2 Unit 2 Review Packet

Show your work!! (All problems are 2 pts unless otherwise noted. 1 pt for work shown, 1 pt for the answer)

1. Expand and simplify:
(-3^4)

2. Expand and simplify:
-9^2

3. Expand and simplify: 5^3

4. Expand and simplify: $-(-4)^2$

5. Simplify: $3*5-7^2+2$

6. Simplify: $-2*(6-3)+8+3^3\div 9$

7. Simplify: $4+9*2-3\div 3$

8. Simplify: $-6(3-5)^2+4*2$

9. What does PEMDAS stand for (1 pt)?

10. Write as an algebraic expression (1 pt): 5 more than a number

11. Write as an algebraic expression (1 pt): 3 less than the product of a number all over 4

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12. Write as an algebraic expression (1 pt): The quotient of goblins and 21

13. Write in words 3 different ways (3 points): $3 \div x$

1. _____

2. _____

3. _____

14. Simplify for x = 4:

x - 7

15. Simplify for y = -6

7y

16. Simplify for l = 2, u = -5, c = 3, and k = 6

$l \cdot (u + c) \div k$

17. Simplify for e = 4, a = 8, r = 3, c = -2, and s = 9

$s + c(a - r^2) + e$

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18.

a) Mrs. Sherrard and Ms. Jansen were picking apples. They filled 4 bags with apples, and they carried 3 home in their hands. Write an algebraic expression for the number of apples in this story. (1 pts)

b) How many apples do they have if each bag has 7 apples in it? (2 pt)

19.

a) Martha and Sophie were buying clothes. They spent x amount of dollars at Forever 21, and they spent $17 at GAP. Write an expression for how much they spent shopping.

b) If they spent $43 at Forever 21, how much did they spend total?

20. Simplify using the distributive property:

$10(7 + 4)$

21. Simplify: $-6(x + 6)$

22. Simplify: $1 - 3(x + 2) + 4 \cdot 6$

Algebraic Expressions Review Packet Answers

* Test Fri. 10/28

1. $(-3)(-3)(-3)(-3) = 81$

2. $-9^2 \quad -(9 \cdot 9) = -81$

3. $5^3 = 5 \cdot 5 \cdot 5 = 125$

4. $-(-4)^2 = -(-4)(-4) = -16$

5. $3 \cdot 5 - 7^2 + 2$
$3 \cdot 5 - 49 + 2$
$15 - 49 + 2$
$-34 + 2$
$\boxed{-32}$

6. $-2 \cdot (6-3) + 8 + 3^3 \div 9$
$-2 \cdot 3 + 8 + 3^3 \div 9$
$-2 \cdot 3 + 8 + 27 \div 9$
$-6 + 8 + 27 \div 9$
$-6 + 8 + 3$
$2 + 3$
$\boxed{5}$

7. $4 + 9 \cdot 2 - 3 \div 3$
$4 + 18 - 3 \div 3$
$4 + 18 - 1$
$22 - 1$
$\boxed{21}$

8. $-6(3-5)^2 + 4 \cdot 2$
$-6(-2)^2 + 4 \cdot 2$
$-6(4) + 4 \cdot 2$
$-24 + 8$
$\boxed{-16}$

9. Parentheses, exponents, multiply/divide, add/subtract

10. $n + 5$

11. $\frac{n-3}{4}$

12. $\frac{9}{21}$

13. the quotient of 3 and x
3 divided by x
3 over x

14. $4 - 7 = \boxed{-3}$

15. $7(-6) = \boxed{-42}$

16. $2 \cdot (-5+3) \div 6$

$2 \cdot (-2) \div 6$

$-4 \div 6$

$\frac{-4}{6} = \boxed{-\frac{2}{3}}$

17. $9 + -2(8-3^2) + 4$

$9 + -2(-1) + 4$

$9 + 2 + 4$

$11 + 4$

15

18. ⓐ $4a + 3$

ⓑ $4(7) + 3$

$28 + 3$

31

19. ⓐ $x + 17$

ⓑ $43 + 17$

$\$60$

20. $10(7+4)$

$70 + 40$

110

	7	4
10		

$70 + 40$

21. $-6(x+6)$

$-6x - 36$

-OR-

$-6x + (-36)$

	x	+6
-6	-6x	-36

22. $1 - 3(x+2) + 4 \cdot 6$

$1 - 3x - 6 + 4 \cdot 6$

$1 - 3x - 6 + 24$

$-3x + 1 - 6 + 24$

$-3x - 5 + 24$

$\boxed{-3x + 19}$