

Name: _____

Worksheet – Evaluating Variable Expressions

Directions: Please simplify the following. SHOW ALL OF YOUR WORK.

1. $\frac{2-3(9)}{4^2-11}$

2. $\frac{20-4(9)}{2^3-2(-4)}$

3. $3[4-2(3)\div 2]^3$

4. $-5[6-2(9)\div 6]^3$

5. $-3^2+2(6)-4$

6. $-5^2+3(-6)-4$

7. $\frac{2}{3}-\frac{5}{4}\left(\frac{8}{25}\right)$

8. $\frac{5}{6}+\frac{3}{7}\left(\frac{14}{9}\right)$

Directions: Please evaluate the following expressions for the given value of the variables.

9. $4x-8$ $x=-3$

10. $3a+3b$ $a=5$ $b=3$

11. $3a+3b$ $a=-5$ $b=-3$

12. $-3a-3b$ $a=5$ $b=3$

13. $-3a-3b$ $a=-5$ $b=-3$

14. x^2 $x=4$

15. $-x^2$ $x=4$

16. $-x^2$ $x=-4$

17. $\frac{a}{b} \cdot \frac{c}{d}$ $a=-12$ $b=5$ $c=15$ $d=36$

18. $y^2 + y + 1 \quad y = 2$

19. $y^2 + y + 1 \quad y = -2$

20. $y^2 - y - 1 \quad y = -2$

21. $y^2 - y - 1 \quad y = -1$

22. $y^2 - y - 1 \quad y = 2$

23. $-2y^2 - 1 \quad y = -2$

Directions: Eliminate the “sign-sign” phenomenon from the following expressions. Do not simplify them.

24. $-(-5) + (-3)$

25. $-9 - (-12) + 2$

26. $4 - +8 + (-4)$

Directions: Rewrite the following expressions 3 different ways using the commutative property.

27. $9 - 6 + 7$