ALGEBRA II

Name_____

Worksheet: Sections 1.1 - 1.5

Answers

Simplify.

1. -2^6 2. $-(-2)^5$ 3. $-2^5 + (3-5)^5$ 4. $(5-2)^3 - 3 \bullet 4$

5. $4(1+3)^2 \div (5-1)$ 6. $(4+20 \div 4)^2$ 7. $6(x^2 - x) - 3(2x - x^2)$

8. $0.5(2X + 8) - 3(2 - 3X)$

Solve.

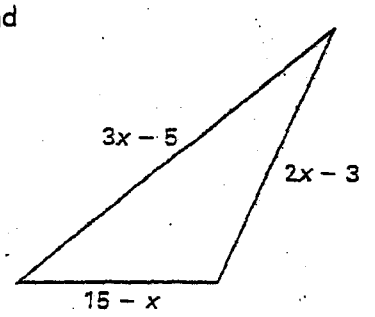
9. $1.5(4x - 2) = 2(0.5x - 3.5)$

10. $\frac{2}{3}\left(3x+\frac{6}{5}\right)=\frac{1}{5}(5x-1)$

11. $3(x + 4) = 3(8 - 2x)$

12. $\frac{1}{2}(4x+10)=5-3x$

13. The perimeter of the figure is 35 feet. Find the dimensions of the figure.



Evaluate the expression for the given values of x and y.

14. $4\left(\frac{x}{y}\right)+3x-2y$ when x = 4 and y = $\frac{1}{2}$

15. $\frac{(x+y)^2-3}{x+y}$ when x = $\frac{1}{2}$ and y = $-\frac{3}{2}$

16. $\frac{5(x-y)}{2xy+1}$ when x = -2 and y = -5

1._____

2._____

3._____

4._____

5._____

6._____

7._____

8._____

9._____

10._____

11._____

12._____

13._____

14._____

15._____

16._____

Solve each equation for y. Then substitute the value of x into the equation and find the value of y.

17. $\frac{2}{3}x+\frac{1}{5}y=\frac{1}{3}$; x = 2

18. y(2x + 1) - 3x = 8 ; x = 2

19. y(4 - 3x) + 2(x + 1) = 9 ; x = 3

Solve the formula for the indicated variable.

20. Height of an Equilateral Triangle

Solve for s: $h = \frac{\sqrt{3}}{2}s$

21. Volume of a Right Circular Cone

Solve for h: $V = \frac{\pi r^2 h}{3}$

22. Area of a Trapezoid

Solve for h: $A = \frac{h}{2}(b_1 + b_2)$

23. Lateral Surface Area of a Right Circular Cylinder

Solve for r: S = 2ΠrH

17._____

18._____

19._____

20._____

21._____

22._____

23._____

24._____