

*****Study your quizzes!!!!*****

Simplify:

1. $x(x-1)$ $x^2 - x$	2. $-x(x+1)$ $-x^2 - x$	3. $-2x(-2x+1)$ $4x^2 - 2x$
4. $-2(x+x^2)$ $-2x - 2x^2$	5. $(x+1)(x+1)$ $x^2 + 2x + 1$	6. $(x-1)(x+1)$ $x^2 - 1$
7. $(2x-3)(-2x)$ $-4x^2 + 6x$	8. $x(x^2 + 2x - 1)$ $x^3 + 2x^2 - x$	9. $2a(a^3 - 7a + 2a)$ $2a^4 - 14a^2 + 4a^2$ $2a^4 - 10a^2$
10. $4x(3x-1)^2$ $4x(9x^2 - 6x + 1)$ $36x^3 - 24x^2 + 4x$	11. $(x-1)(x^2 + 3x + 1)$ $x^3 + 3x^2 + x$ $-x^2 - 3x - 1$ $x^3 + 2x^2 - 2x - 1$	12. $(x+1) - 2(1 - 4x + x^3)$ $x+1 - 2 + 8x - 2x^3$ $-x^3 + 9x - 1$

Fill in the blanks with definitions or steps or processes.

13. To determine the degree of polynomial, identify _____.

14. A polynomial is a monomial when one term.

15. A polynomial is a binomial when 2 terms.

16. A polynomial is a trinomial when 3 terms.

17. A polynomial is linear, quadratic, or cubic when _____ respectively.

1 ↘ 2 ↘ 3

Complete the table below.

Expression	Degree	Constant, Linear, Quadratic, or Cubic?	Monomial, Binomial, or Trinomial?
14. $12x - 7$	1	Linear	Binomial
15. $x^2 + 3x - 17$	2	Quadratic	Trinomial
16. $-5 + x^3$	3	Cubic	Binomial
17. -8	0	Constant	Monomial

18. Find the slope: $5x + 10y = 20$

$$10y = -5x + 20$$

$$y = -\frac{1}{2}x + 2$$

$$m = -\frac{1}{2}$$

19. Find the slope: $(5, -3)$ $(-6, -14)$

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{-14 - (-3)}{-6 - 5} = \frac{-11}{-11} = 1$$

20. Write the equation in slope intercept form

That passes through: $(-2, -4)$ $(7, -13)$

$$m = \frac{-13 - (-4)}{7 - (-2)} = \frac{-9}{9} = -1$$

$$y = mx + b$$

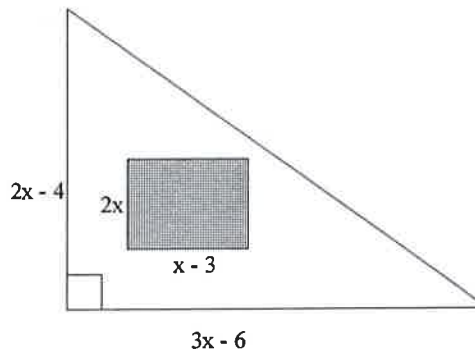
$$-13 = -1(7) + b$$

$$-13 = -7 + b$$

$$-6 = b$$

$$y = -x - 6$$

21. Find the area of the UNSHADED Region.



$$[(2x-4)(3x-6)] - [(2x)(x-3)]$$

$$[6x^2 - 24x + 24] - [2x^2 - 6x]$$

$$6x^2 - 24x + 24 - 2x^2 + 6x$$

$$4x^2 - 18x + 24$$

22. $(x^3y^4z^3)^2$

~~$x^6y^8z^6$~~

$$x^6y^8z^6$$

23. $-3x(2x^4y^3)(-5x^3y^{-7})$

$$\frac{30x^8}{y^4}$$