

Math 1 Exam Review 1

$$2x + 5y = 9$$

1. Given: $-3x + 4y = -2$ What is the value of x and y ?

$$2x + 3y = 20$$

2. Given: $5x - 2y = 31$ What is the value of x and y ?

3. $2pq(-3p^2q^4)$

4. $(-5x^3y^2)(3x^4y)$

5. $(-2y^3z)^2$

6. $(-4a^2bc^3)^3$

7. $\frac{4x^3y^5}{2xy^2}$

8. $\frac{3p^4q^2}{9pqr}$

9. $(3x^2 + 2x - 3) - (-5x^2 + 4x + 8)$

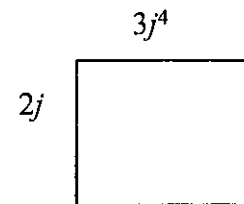
10. $(7y^2 - 4y + 9) - (y^2 + 5y + 2)$

11. $(x - 2)(x + 3)$ *Box

12. $(2x - 2)(x^2 + 5x - 4)$ **Box

13. $4p^2(-5p)$

14. Find the area of the figure. (l x w)



15. The height, $h(t)$, of an object that is projected straight upward with initial velocity (v_0) from an initial height (h_0) is given by the formula $h(t) = -16t^2 + v_0t + h_0$, where $t =$ seconds.

If Roger is standing on a balcony 95 feet above the ground and launches a ball straight up with an initial velocity of 70 feet per second, what would be the height in feet of the ball 2 seconds after it was launched?

The linear model $V = 8,000n + 430,000$ represents the expected value, V , of a piece of land in Wake County n years after 2010.

16. What is the expected value of the land in 2019?

17. In what year will the value of the land be worth \$600,000?

18. What does the slope mean in the situation?

If $f(b) = b^2 + 4b - 3$ and $g(b) = 8b + 2$, find the values.

19. $f(2) =$

20. $g(0) =$

21. $f(-1) =$

22. $g(-4) =$

23. The formula to determine voltage of a circuit is $V = IR$, where V represents volts, I represents the current in amps, and R represents the resistance in ohms. What is the resistance of a 40 volt circuit that has a current of 14 amps?

Solve:

24. $7(a + 5) = 23 - 5a$

A Honda Civic is purchased for \$12,200 and depreciates \$1,100 per year.

25. Write an equation that represents the value, V , of the car at the end of t years.

26. Determine the value of the car 6 years after purchase.

Larry the cable guy charges \$10 an hour and a \$14 visitation fee.

27. Write an equation to model the situation use C for total cost and h for hours.

28. How much will Larry charge for a job that takes 4 hours?

29. How many hours did Larry work if the bill for a job was \$49?

Homer Simpson wants to get DirecTV or DishNetwork. DirecTV charges a \$140 installation fee and \$70 each month. DishNetwork charges \$90 monthly and \$20 for installation.

30. Write an equation to model DirecTV using P for total paid and m for months.

31. Write an equation to model DishNetwork using P for total paid and m for months.

32. After how many months of service will the companies totals cost the exact same?

33. $-2(3x + 6) + 5x = -11$