

Stations One: Conversions and Word Problems

- 1) Convert 7 days into years
- 2) Convert 56.7 yards into inches
- 3) How many cups are in 5.2 gallons
- 4) Convert 12.6 ounces into pounds (1 lb = 16 oz)
- 5) How many cm are in 23 meters?
- 6) Convert .552 grams into milligrams
- 7) Convert 15.5 feet into meters (use 1 inch = 2.54 centimeters)
- 8) Convert 55 kilograms into pounds (use 1 ounce = 28.35 g)
- 9) Tom can drive 310 miles on 10.5 gallons of gas. How many kilometers can he drive on 15 Liters? (1 mile = 1.61 kM and 1 quart = .946 L)
- 10) Becca is 175 miles from Atlanta. If she is driving at 50 mph, how many hours will it take her to reach her destination?
- 11) Henry's fitness club charges a one time registration fee and then charges by the month. The amount he pays for service can be model by the equation $10m + 25$. What does 10 represent? What does 25 represent?

Station Two: Radicals

1) $\sqrt{360x^3y^2}$

2) $4xy\sqrt{900x^4y^6}$

3) $\sqrt{63x^2y} \cdot \sqrt{14y^3}$

4) $3x\sqrt{15x} \cdot 2\sqrt{10x^2}$

5) $\sqrt{10x^2} \cdot -3x\sqrt{20x^2}$

6) $-4\sqrt{20x^2} \cdot 5x\sqrt{25x}$

7) $3\sqrt{6} - 2\sqrt{27} + 3\sqrt{54}$

8) $3\sqrt{150} - \sqrt{150} - 4\sqrt{75}$

9) $2\sqrt{6} - 3\sqrt{4} - 3\sqrt{24}$

10) $-5\sqrt{27} + 2\sqrt{12} + \sqrt{8}$

11) Give one example of rational number. Explain why it is rational

12) Give one example of an irrational number. Explain why it is irrational

Stations 3: Polynomials

1) Write the following in standard form, state the leading coefficient, the degree (and name by degree), and name by number of terms $5x^2 - 10 + x - 3x^3$

2) Write the following in standard form, state the leading coefficient, the degree (and name by degree), and name by number of terms $4 + 6x^2 - 12x$

3) $(x^2 + 3x) + (x^2 - 4x + 9)$

4) $(4x^2 - 11x + 10) + (5x - 31)$

5) $(x^2 - 6x + 5) - (x^2 + x - 2)$

6) $(7x^3 - 1) - (15x^3 + 4x^2 - x + 3)$

7) $-4x(x^2 + 6x - 7)$

8) $(3x - 4)(2x - 7)$

9) $(x + 6)(x - 6)$

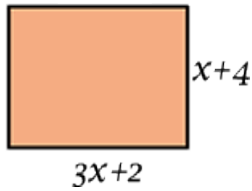
10) $5x^3(4x^5 - 2x + 1)$

11) $(8x - 1)^2$

12) $(7x - 5)(3x + 10)$

Station 4: Perimeter, Area, and Volume

- 1) Find the perimeter and the area of the rectangle below



- 2) What is the volume of a box of tissues with dimensions 12 inches by 4 inches by 5 inches?
- 3) A pool is designed to be 10 feet longer than its width. Draw a diagram that would represent this.
- 4) What would be the perimeter of the pool?
- 5) What would be the area of the pool?
- 6) If $x = 12$ feet what is total square area of the pool?
- 7) If the pool is going to be 6 feet deep what is the volume of the pool?
- 8) How many gallons will it take to fill the pool? ($1 \text{ ft}^3 = 7.48$ gallons)
- 9) You are going to fill the pool with your hose which flows at a rate of 90 kg/min. How many gallons is that per minute? ($1 \text{ kg} = .264$ gallons)
- 10) How many minutes will it take to fill up the pool? (bonus- what is that in hours?)