

***“Goal setting is like going through life. If you succeed people will talk about you, if you fail people will talk about you. So have people talk about you while you touch the sky”
– Bryce Kamagate***

Monday: Factor the following:

Factor the following trinomials:

1. $x^2 + 7x + 12$

2. $x^2 - 4x - 32$

3. $x^2 - 18x + 80$

4. $x^2 - 2x - 35$

5. $x^2 - x - 110$

Factor the following: (hint: difference of squares)

6. $x^2 - 16$

7. $4x^2 - 81$

8. $9x^2 - 144$

9. $(x - 4)$ and $(x + 12)$ are the factors of the polynomial $p(x)$. What is the polynomial $p(x)$

Tuesday:

1. Factor: $5x^2 - 2x - 7$

2. Factor: $4x^2 - 25$

3. Factor by grouping: $9x^3 - 3x^2 + 15x - 5$

4. Factor by grouping: $x^3 - 4x^2 + 5x - 20$

5. Factor by grouping: $5h^2 - 10hk + 5hr - 10kr$

Wednesday:

Simplify each sum or difference. (Add and Subtract and then combine like terms.)

1) $4x + 1 + 6x - 5$

2) $(2x^2 - 6x) + (3x^2 + 9x)$

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

4) $-(-2x + 4) + (8 - 4x)$

5) $x^2 - (2x - x^2) + 4x$

Thursday

Simplify the following:

1. $\frac{(x+3)(x+4)(x-5)}{(x+4)(x-5)(x-7)}$

2. $\frac{x^2+4x+4}{(x+2)(x-7)}$

3. $\frac{(x^2+7x+12)}{(x+4)} \times \frac{(x+5)}{x^2-25}$

4. $\frac{(x^2+8x+12)}{(x+2)} \times \frac{(x+5)}{(2x+10)}$

5. $\frac{(x^2+8x+15)}{(x+4)} \div \frac{(x+5)}{(4x+16)}$

6. $\frac{(x^2+7x+12)}{(x^2+6x+9)} \times \frac{(x+3)}{(x+6)}$