Use the lessons links (underlined section titles) to complete the following practice questions. Show your work. Do NOT use a calculator.

1. [Factors and Primes](https://www.coolmath.com/prealgebra/00-factors-primes)

**A) Divisibility Rules:**

1. Is 378 divisible by 2?
2. Is 729 divisible by 10?
3. Is 590 divisible by 5?
4. Is 540 divisible by 3?
5. Is 982 divisible by 9?
6. Is 689,531 divisible by 4?
7. Is 73,232 divisible by 8?

**B) Primes and Factors:**

Use factor trees to find the prime factorizations of:

* + 1. 88 b. 48
    2. 378 d. 16,500

1. [Fractions](https://www.coolmath.com/prealgebra/01-p2-fractions)
2. =
3. =
4. =
5. =
6. [Decimals](https://www.coolmath.com/prealgebra/02-decimals)

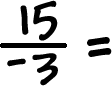
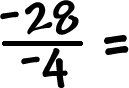
Change the following from fraction to decimal or from decimal to fraction, as indicated:

a. = b. = c. =

d. 0.15 = e. 0.35 = f. 0.325

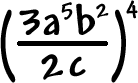
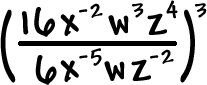
1. [Percents](https://www.coolmath.com/prealgebra/03-percents)
   1. Convert 50% to a fraction. d. Convert to a percentage
   2. Convert 80% to a fraction. e. Convert to a percentage
   3. Convert 14% to a fraction. f. Convert to a percentage
2. [Signed Numbers (Integers)](https://www.coolmath.com/prealgebra/08-signed-numbers-integers)
   * 1. 5 + -8 + 2 + 6 + -4 + -7 =

* + 1. -1 + -9 + 3 + 8 + -2 + 10 =
    2. 41 + -12 + 13 + -61 + 150 =
    3. -50 / 10 =

* + 1. -6 / -3 =
    2. 
    3. 
    4. 42 / -7 =

1. [Intro to Exponents](https://www.coolmath.com/prealgebra/13-intro-to-exponents)

**Simplify (rewrite)**

1.  b. 
2. [Intro to Radicals](https://www.coolmath.com/prealgebra/14-intro-to-radicals)

Simplify:

1. sqrt(45) + sqrt(20) +sqrt(5) - sqrt(125) =

1. 6 / sqrt(15)
2. 
3. [Intro to Polynomials](https://www.coolmath.com/prealgebra/15-intro-to-polynomials)
4. subtract  3x^2 - 6xy + y^2  from  x^2 - 4xy + 5y^2 =
5. ( 4(a^2)b - ab + 3b^2 - 1 ) + ( (a^2)b + 8ab - 6a^2 + 5 ) =
6. 6x^4 ( 2x^2 + 3 ) =
7. [Intro to Solving Equations](https://www.coolmath.com/prealgebra/16-intro-to-solving-equations) – Solve for ***x***
8. 3x + 8 = -7
9. 2x + 9 = 6x - 3
10. 3 - ( 2x + 5 ) = 5 + x + 2 ( 4x - 6 )