



**Objective:** Adding and Subtracting Radicals

**Homework RX2 – NYA p.625 #1 – 15**

**Do Now: Simplify**

1. $4\sqrt{10}$	2. $8\sqrt{36}$	3. $8\sqrt{160}$

**Exam Prep:** What is the value of  $8x^2 + 3x^2 + x^2$ ?

- A)  $11x^2$     B)  $11x^6$     C)  $12x^2$     D)  $12x^6$



Adding / subtracting Radicals is the same as adding / subtracting variables. You need **LIKE TERMS**. You do the work with coefficients and keep the “like terms.”

**Like Terms Addition and Subtraction**

Ex 1. $3\sqrt{5} + 2\sqrt{5} =$	Ex 2. $8\sqrt{15} - 14\sqrt{15} =$
1. $2\sqrt{11} + 20\sqrt{11} =$	2. $13\sqrt{x} - 10\sqrt{x} =$
	3. $4\sqrt{8} - 3\sqrt{8} =$
4. $3\sqrt{3} + 7\sqrt{3} - \sqrt{3} =$	5. $-\sqrt{14} + 9\sqrt{14} =$
	6. $2\sqrt{9} - 2\sqrt{9} =$



**Rational  
Number  
Refresh**



- Rational numbers can be written as fractions or are decimals that end or display a pattern.
- Irrational numbers are decimals that show no pattern and do not end. \*\*\*All non-perfect squares are irrational.

## Unlike Terms Addition and Subtraction

Ex 1.  $2\sqrt{5} + 2\sqrt{3} =$

Ex 2.  $20\sqrt{3} - 3\sqrt{12} =$

1.  $\sqrt{10} + \sqrt{90} =$

2.  $30\sqrt{2} - 2\sqrt{8} =$

3.  $4\sqrt{8} + 5\sqrt{16} =$

4.  $7\sqrt{20} + 2\sqrt{80} =$

5.  $-2\sqrt{100} + 3\sqrt{64} =$

6.  $\sqrt{75} - 2\sqrt{27} =$