

DO NOW

List the first 13 perfect squares.

1, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144, 169...

$(1)^2$ $(2)^2$ $(3)^2$ $(4)^2$ $(5)^2$ $(6)^2$

Introduction to Radicals

← Square Roots

$$\sqrt{36} = 6$$

$$\sqrt{25} = 5$$

$$\sqrt{\frac{9}{16}} = \frac{3}{4}$$

$$\sqrt{34} \leftarrow \text{irrational}$$

any # that CAN be written as a fraction

rational	irrational
1. fractions	1. nonterminating nonrepeating decimals
2. integers	2. π
3. terminating decimals	3. $\sqrt{\text{not a perfect square}}$
4. repeating decimals	
5. $\sqrt{\text{perfect squares}}$	

[12 - 1 Rational or Irrational flip](#)

Between which two consecutive numbers is:

1. $\sqrt{34}$ between $\sqrt{25}$ and $\sqrt{36}$
 $\boxed{5 \text{ and } 6}$

2. $\sqrt{73}$ between $\sqrt{64}$ and $\sqrt{81}$
 $\boxed{8 \text{ and } 9}$

3. $\sqrt{58}$ between $\sqrt{49}$ and $\sqrt{64}$
 $\boxed{7 \text{ and } 8}$

4. $\sqrt{110}$ between $\sqrt{100}$ and $\sqrt{121}$
 $\boxed{10 \text{ and } 11}$

PEMDAS and Radicals:

GEMS

* radicals are exponents

Examples:

1. $\sqrt{16} + \sqrt{25}$
 $4 + 5$
 $\boxed{9}$

2. $5(\sqrt{49})$
 $5(7)$
 $\boxed{35}$

HOMEWORK

Worksheet - HW - Basic Square Roots