February 10, 2015

* Exam #1 - Friday February 20th!
  * on everything
  * Review on Wednesday

Feb 10-9:03 AM

2.5

Finding Average

$$\text{average} = \frac{\text{sum of things}}{\text{the number of things}}$$

Things: 5, 6, 8, 9

$n = 4$

$$\text{avg} = \frac{5+6+8+9}{4} = \frac{27}{4} = 6\frac{3}{4} = 6.75$$

$4 \overline{)27}$, $6 \times 4 = 24$, remainder 3

Feb 10-9:14 AM

Do 2.5 assignment

Feb 10-9:21 AM

2.6 Exponents & order of Operations

5^3 ← exponent; 5 ← base

$= [5 \cdot 5] \cdot 5$

$= 25 \cdot 5$

$= 125$

Feb 10-9:26 AM

① $4^2 = 4 \cdot 4 = 16$

* ② $(-4)^2$ ← even! $= (-4) \cdot (-4) = 16$ (base: -4)

* ③ $-4^2 = (-1) \cdot 4^2$

$= [(-1) \cdot 4] \cdot 4$

$= -4 \cdot 4$

$= -16$

Feb 10-9:32 AM

$2^3 = 2 \cdot 2 \cdot 2$

$= 4 \cdot 2$

$= 8$

$-2^3 = (-1) \cdot 2 \cdot 2 \cdot 2$

odd exponent result is neg.

$= -2 \cdot 2 \cdot 2$

$= -4 \cdot 2$

$= -8$

$(-2)^3 = (-2) \cdot (-2) \cdot (-2)$

$= 4 \cdot -2$

$= -8$

Feb 10-9:36 AM

Order of Operations

① Simplify Grouping Symbols

( ), [ ], { }, $\frac{a}{b}$, $|a|$, $\sqrt{a}$

$2 + (6 - |9|)$ (① $|9|$)

$2 + (6 - 9)$ (② $6 - 9$)

$2 + (-3)$ (③ $2 + (-3)$)

-1

Feb 10-9:39 AM

② Evaluate Exponents

$5 - |2^3 + |-7||$ (① $|-7|$)

$5 - |2^3 + 7|$ (② 2^3)

$5 - |8 + 7|$ (③ $8 + 7$)

$5 - |15|$ (④ $|15|$)

$5 - 15$

-10

Feb 10-9:45 AM

③ Multiplication / Division

Left to Right

④ Addition / Subtraction

L → R

Read 2.6

Feb 10-9:48 AM