CONCEPT: MATH WITH SIG FIGS

- When using math operations to calculate values, there are additional rules to determine # of Sig Figs:

EXAMPLE Write the answer for the following calculations below, expressed with the appropriate # of Sig Figs.

Rule 1

IF + | – *ONLY*, Round answer to same **[Sig Figs | Decimal Places]** as # with *least* **[Sig Figs | Decimal Places]**

A) $5.389 - 4.3 + 0.103$

Rule 2

IF × | ÷ *ONLY*, Round answer to same **[Sig Figs | Decimal Places]** as # with *least* **[Sig Figs | Decimal Places]**

B) $43.5287 \div 0.05192 \times 0.0023$

Rule 3

IF + | – *AND* **× | ÷,** For all intermediate steps: Use PEMDAS, write extra digits & mark last allowed Sig Fig

For final answer: Round according to Rule 1 or 2

C) $(3.86200 + 0.0987) \times 0.1345$

PRACTICE**:** What is the area of a sidewalk that is 2.293 m wide and 90 m long? Write your answer with the correct number of significant figures**.**

A) 206.4 m^2
B) 210 m^2
C) 206.37 m^2
D) 200 m^2

EXAMPLE**:** Block A has side lengths 0.50 m × 0.875 m × 2.250 m**.** Block B has a volume of 2.6 m^3**.** What is the combined volume of the blocks, expressed with the correct number of significant figures?