

Basic Math Skills Incoming Grade Level Students Should Know

Incoming 6th Graders:

- Multiplication Facts
Example: $9 \cdot 3 = 27$

Incoming 7th Graders:

- Ratios
- Order of Operations
Example:
$$\begin{cases} 3(4)^2 - 4(3)^2 = 12 \\ 16 - 3(8 - 3)^2 \div 5 = 1 \end{cases}$$
- One-Step Equations
Example: $\frac{y}{5} = 13 \Rightarrow y = 65$
- Fraction Operations
Example:
$$\begin{cases} \frac{1}{8} \left(\frac{5}{2} \right) = \frac{5}{16} \\ \frac{11}{14} \div \frac{1}{7} = \frac{11}{2} = 5\frac{1}{2} \end{cases}$$
- Decimal Operations
Example:
$$\begin{cases} 2.6 - 0.345 = 2.255 \\ 5.64(8.239) = 46.46796 \end{cases}$$



Helpful Websites

<http://www.engageny.org/>

<http://www.mathshell.org/>

<http://www.shodor.org/interactivate/>

Incoming 8th Graders:

- Proportions
- Integer Operations
Example:
$$\begin{cases} -4 + 5 = 1 \\ -9 - 18 = -27 \\ 2 - 23 = -21 \end{cases}$$
- Fraction Operations
Example:
$$\begin{cases} \frac{3}{7} - \frac{8}{9} = -\frac{29}{63} \\ -\frac{4}{5} + \frac{2}{3} = -\frac{2}{15} \end{cases}$$
- Graphing Skills
Example: Graph $5x - y = -2$
(Make a T-chart)

