

# Order of Operations

## SSE.A.1b and SSE.A.2

Evaluate - find an expression's value.

Order of Operations

Parenthesis  $()$ ,  $[( )]$ ,  $\{ \}$

Exponents, Square Roots

$\}$  Multiplication

$\}$  Division

$\}$  Addition

$\}$  Subtraction

Evaluate  $16 - 8 \div 2^2 + 14$

$$16 - 8 \div 4 + 14 \quad - \text{Exponent}$$

$$16 - 2 + 14 \quad - \text{Division}$$

28

- Addition/  
Subtraction

Evaluate  $4 \div 2 + 5(10 - 6)$

$4 \div 2 + 5(4)$  - Parenthesis

$2 + 20$  - Multiplication/  
Division

$22$  - Addition

Evaluate  $6[32 - (2+3)^2]$

$$6[32 - 5^2] \quad - \text{Parenthesis}$$

$$6[32 - 25] \quad - \text{Exponent}$$

$$6[7] \quad - \text{Subtraction}$$

$$42$$

$$- \text{Multiply}$$

Evaluate  $15 - [10 + (3 - 2)^2]$

$$15 - [10 + 1^2]$$

$$15 - [10 + 1]$$

$$15 - 11$$

$$\textcircled{4}$$

Evaluate  $\frac{2^3 - 5}{15 + 9}$

$$\frac{8 - 5}{24}$$

$$\frac{3}{24}$$

*Reduce*

$$\frac{1}{8}$$

Evaluate  $3x^2 + (2y + z^3)$  if

$x=4$ ,  $y=5$  and  $z=3$ .

$$3(4)^2 + (2(5) + (3)^3)$$

$$3(4)^2 + (2(5) + 27)$$

$$3(4)^2 + (10 + 27)$$

$$3(4)^2 + 37$$

$$3(16) + 37$$

$$48 + 37$$

$$\boxed{85}$$