

Math 1513 - College Algebra

Quiz #1 - 2008.08.26

Solutions

1. Evaluate the expression $16 \div 2^2 + 4 \times 3 - 1$.

Remember the order of operations. We do this step by step:

$$\begin{aligned}16 \div 2^2 + 4 \times 3 - 1 &= 16 \div 4 + 4 \times 3 - 1 \\ &= 4 + 12 - 1 \\ &= 15\end{aligned}$$

2. Write the following expression without absolute value bars: $|1 - x|$, if $x > 1$.

If $x > 1$ then the quantity $1 - x$ is negative. Thus $|1 - x| = -(1 - x) = x - 1$ if $x > 1$.

3. Find the product $(2x - 3)(x + 5)$.

The FOIL method can be employed here:

$$\begin{aligned}(2x - 3)(x + 5) &= 2x^2 + 10x - 3x - 15 \\ &= 2x^2 + 7x - 15\end{aligned}$$