

# Math 1303 - Math in the Liberal Arts

Quiz #12 - 2014.10.22

Solutions

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1. Evaluate the following expression, be sure to show all your steps:

$$12 + 6 \div 3 - 3 \wedge 2 \times (7 - 4) + 2 \times 4 - 1$$

First we do parentheses:

$$12 + 6 \div 3 - 3 \wedge 2 \times 3 + 2 \times 4 - 1$$

Then exponents:

$$12 + 6 \div 3 - 9 \times 3 + 2 \times 4 - 1$$

Then multiplication:

$$12 + 6 \div 3 - 27 + 8 - 1$$

Then division:

$$12 + 2 - 27 + 8 - 1$$

Then addition:

$$14 - 19 - 1$$

And finally subtraction:

$$-6$$

2. Construct a prime factorization tree for the number 23100.

