

MASSACHUSETTS MATHEMATICS LEAGUE
CONTEST 4 - JANUARY 2011
ROUND 6 ALG 1: ANYTHING

ANSWERS

A) (_____ , _____ , _____)

B) _____ %

C) _____

A) Find the ordered triple (x, y, t) if $x = 4t + 1$, $y = 11 - 3t$ and $x + y + 3t = 0$.

B) What is the exact percent error made when the repeating decimal $0.1\overline{6}$ is approximated as 0.17 ?

$$\text{Definition: \% Error} = \frac{|\text{Estimate} - \text{Exact}|}{\text{Exact}} \cdot 100\%$$

C) A collection of coins consists exclusively of nickels, dimes and quarters.
The value of the collection is \$6.50.
The value of the dimes is 4 times the value of the nickels.
If there are 50 coins in the collection, how many quarters are there?