

MASSACHUSETTS MATHEMATICS LEAGUE

JANUARY 2006

ROUND 6 ALGEBRA ONE: ANYTHING

ANSWERS

A) _____

B) _____

C) _____

A) If $(a + b)^2$ is 12 more than $(a - b)^2$, find ab .

B) If $b = 5c - 3$ and $c = 5d - 3$ and $d = 5b - 3$, find c .

C) If $14p^2 + 15q^2 = 41pq$, find the sum of all possible values for $\frac{p}{q}$.