Algebra 1 Bellwork Tuesday, January 27, 2015

Solve each system of equations

1.

$x + y = 50$

$0.09x + 0.17y = 7$

2.

$36(x - y) = 288$

$24(x + y) = 288$

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Answers

1.

$.09(x + y = 50)$

$0.09x + 0.17y = 7$

$-0.09x + 0.09y = 4.5$

$\frac{0.08y}{0.08} = \frac{2.5}{0.08}$

$y = 31.25$

$x + 31.25 = 50$

$-31.25 \quad -31.25$

$x = 18.75$

(18.75, 31.25)

2.

$36(x - y) = 288$

$24(x + y) = 288$

$2(36x - 36y = 288)$

$3(24x + 24y = 288)$

$72x - 72y = 576$

$+ \quad 72x + 72y = 864$

$\frac{144x}{144} = \frac{1440}{144}$

$x = 10$

$24(10 + y) = 288$

$240 + 24y = 288$

$-240 \quad -240$

$\frac{24y}{24} = \frac{48}{24}$

$y = 2$

(10, 2)