Algebra 1 Bellwork Friday, February 19, 2016

Solve each system of equations

1.

$x + y = 50$

$0.09x + 0.17y = 7$

2.

$36(x - y) = 288$

$24(x + y) = 288$

3. Solve for y given $A = B$ and

$A = 5200 + 8y$

$B = 24y$

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ANSWERS

Solve each system of equations

1.

$.09(x + y = 50)$

$0.09x + 0.17y = 7$

$.09x + .09y = 4.5$

$-\ .09x + .17y = 7$

$-.08y = -2.5$

$y = 31.25$

$x + 31.25 = 50$

$x = 18.75$

$(18.75, 31.25)$

2.

$36(x - y) = 288$

$24(x + y) = 288$

$\frac{36(x-y)}{36} = \frac{288}{36}$

$x - y = 8$

$\frac{24(x+y)}{24} = \frac{288}{24}$

$x + y = 12$

$x - y = 8$

$+\ x + y = 12$

$2x = 20$

$x = 10$

$10 + y = 12$

$y = 2$

$(10, 2)$

3. Solve for y given $A = B$ and

$A = 5200 + 8y$

$B = 24y$

$A = B$

$5200 + 8y = 24y$

$-8y \quad -8y$

$\frac{5200}{16} = \frac{16y}{16}$

$y = 325$