Name.....No.....M.3/.....

# 3 worksheet

**From the following problems, explain your solutions.**

1) The sum of two numbers is −42, and their difference is 52. What are these two numbers?

Let x be a number and let y be another number.

$x + y = -42$ ——— ①

$x - y = 52$ ——— ②

① + ② $2x =$ [redacted]

$x = \frac{10}{2}$

$x =$ [redacted]

Substitute the value of x in ①.

$5 + y =$ [redacted]

$y =$ [redacted]

$y =$ [redacted]

Therefore, these two numbers are 5 and −47.

LIVEWORKSHEETS

Name.....No.....M.3/.....

# 3 worksheet

2) The difference of two numbers is 16, and three times the larger number is nine times as much as the smaller number. What are these two numbers?

Let x be the larger number and let y be the smaller number.

$x - y = \square$ ——— ①

$3x = 9y$ ——— ②

From ② $x = 3y$ ——— ③

From ③, substitute the value of x in ①.

$3y - y = 16$

$\square = 16$

$y = \frac{16}{2}$

$y = \square$

Substitute the value of y in ③.

$x = 3(8)$

$x = \square$

Therefore, these two numbers are 8 and $\square$

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