MPM 1D1 Review of Word Problems

For the problems below, write the appropriate LET statements and the equation. Do NOT solve.

1. Five times a number is the same as the number decreased by 52. Find the number.

let "n" be the number

$5n = n - 52$

2. To find the length of a certain rectangle you must triple the width and add 5 metres. If the perimeter of the rectangle is 74 metres, determine the dimensions.

let "w" be the width

width	length
w	3w+5

$2(w + 3w + 5) = 74$

3. Jeff has $4.05 made up of nickels and dimes. If he has seven times as many nickels as dimes, how many dimes does he have?

let "d" be the number of dimes

	dimes	nickels
number	d	7d
value	10d	5(7d)

$405

$10d + 35d = 405$

4. The sum of two numbers is 95. The larger number increased by 21 equals the smaller number increased by 32. Find the numbers.

let "s" be the smaller number

smaller	larger
s	95 - s

$95 - s + 21 = s + 32$

5. The length of a rectangle is 12cm more than twice the width. The perimeter of the rectangle is 66cm. Find the length and the width of the rectangle.

Let "w" be the width

width	length
w	2w+12

$2(w + 2w + 12) = 66$

6. The sum of two numbers is 45. If 4 times the smaller number is increased by 3 times the larger number, the result is 150. Find the numbers.

Let "a" be the smaller number

smaller	larger
a	45-a

$4a + 3(45 - a) = 150$

7. The sum of two consecutive even integers is 114. What are the integers?

Let n, $n+2$ be the numbers

$n + n + 2 = 114$

8. Ron has $21.90 made up of dimes and quarters. If there are 117 coins in all, how many quarters are there?

let "d" be the number of dimes

$21.90

	dimes	quarters
number	d	117-d
value	10d	25(117-d)

$10d + 25(117 - d) = 2190$ cents

9. A parking meter contained 78 coins made up on dimes and nickels. The total value of the coins was $5.20. How many dimes did it contain?

Let "d" be the number of dimes

$5.20 = 520 cents

	dimes	nickels
number	d	78-d
value	10d	5(78-d)

$10d + 5(78 - d) = 520$

10. Find two consecutive integers such that the larger minus twice the smaller is -13.

Let n, $n+1$ be the integers

$n + 1 - 2n = -13$

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