Name _____ Date _____

Topic : Word Problems with Consecutive Integers - Worksheet 1
Solve the following:

1 Two consecutive integers have a sum of 77. What are the two integers?

$x + (x+1) = 77$ 38 & 39

2 The sum of two consecutive integers is 41. What are the two integers?

$x + (x+1) = 41$ 20 & 21

3 What four consecutive integers have a sum of 86. Name them.

2, 3, 4, 5

x $x+1$ $x+2$ $x+3$

$x + (x+1) + (x+2) + (x+3) = 86$

$4x + 6 = 86 \rightarrow 4x = 80$

$x = 20$

20, 21, 22, 23

4 Two consecutive even integers have a sum of 38. What are the two integers?

2, 4

x $x+2$

$x + (x+2) = 38$

$2x + 2 = 38$

$2x = 36$

$x = 18$

18, 20

5 Two consecutive odd integers have a sum of 92. What are the two odd integers?

3, 5

x $x+2$

$x + (x+2) = 92$

$2x + 2 = 92$

$2x = 90$

$x = 45$

45, 47

6 What two consecutive integers have a sum of 47?

$x + (x+1) = 47$

$2x + 1 = 47$

$2x = 46$ $x = 23$ 23, 24

7 What two consecutive odd integers have a sum of 48?

$x + (x+2) = 48$

$2x + 2 = 48$

$x = 23$ 23 & 25

8 Two negative consecutive integers have a sum of -45. What are the integers?

$-x + (-x+1) = -45$

$-2x + 1 = -45 \rightarrow -2x = -46$

$x = 23$

-23, -22

9 The sum of two consecutive integers is 75. What are the two integers?

$x + (x+1) = 75$ $2x + 1 = 75$ $x = 37$ 37 & 38

10 What three consecutive odd integers have a sum of 81?

$x + (x+2) + (x+4) = 81$

$3x + 6 = 81 \rightarrow 3x = 75$

$x = 25$

25, 27, 29

Pg 19

1) $(x+3)+5=19$

$x+8=19$

$\boxed{x=11}$

2) $3x-5=10$

$3x=15$

$\boxed{x=5}$

3) $6x-18=-42$

$6x=-24$

$\boxed{x=-4}$

4) $2x+x=96$

$3x=96$

$\boxed{x=32}$

5) $x+x+2x+4x=-104$

$8x=-104$ $\boxed{x=-13}$

6) $6+9x=10x-2$

$-9x \quad -9x$

$6=x-2$

$+2 \quad +2$

$\boxed{x=8}$

7) $7x-11=6x+5$

8) $8x-14=4x+3$