Answer Key **HW #________**

1. **(2)** 2. **(4)** 3. **(3)**

4. **x**: 1^{st} integer **{-34 and -33}**
x + 1: 2^{nd} integer

$$x + (x + 1) = -67$$
$$2x + 1 = -67$$
$$2x = -68$$
$$x = -34$$

5. **x**: 1^{st} integer **{10, 11, 12}**
x + 1: 2^{nd} integer
x + 2: 3^{rd} integer

$$x + (x + 1) + (x + 2) = 9 + 2(x + 2)$$
$$3x + 3 = 9 + 2x + 4$$
$$3x + 3 = 13 + 2x$$
$$x + 3 = 13$$
$$x = 10$$

6. **x**: 1^{st} integer **{22, 24}**
x + 2: 2^{nd} integer

$$2x - 20 = x + 2$$
$$x - 20 = 2$$
$$x = 22$$

7. **Yes**

Sally:

n: 1^{st} integer (13)
n + 1: 2^{nd} integer (14)
n + 2: 3^{rd} integer (15)

$$n + (n + 1) + (n + 2) = 42$$
$$3n + 3 = 42$$
$$3n = 39$$
$$n = 13$$
{13, 14, 15}

Jerry:

n – 5: 1^{st} integer (18 – 5 = 13)
n – 4: 2^{nd} integer (18 – 4 = 14)
n – 3: 3^{rd} integer (18 – 3 = 15)

$$(n - 5) + (n - 4) + (n - 3) = 42$$
$$3n - 12 = 42$$
$$3n = 54$$
$$n = 18$$
{13, 14, 15}

They will get the same result as shown above. Sally and Jerry defined the unknowns differently but <u>represented the same relationship</u>.