

5.

$$\{2, 3, 9, 4, 11, 4x - 8, 3y - 4\}$$

The modes of the set above are 2 and 11. What is one possible value of $x + y$?

7.5

$$4x - 8 = 2$$

$$4x = 10$$

$$x = \frac{5}{2}$$

$$3y - 4 = 11$$

$$3y = 15$$

$$y = 5$$

6. The median of a list of 99 consecutive integers is 60. What is the greatest integer in the list?

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$$49 \text{ \#s} \rightarrow 60 \rightarrow 49 \text{ \#s}$$

$$60 + 49$$

7.

$$10, 18, 4, 15, 3, 21, x$$

If x is the median of the 7 numbers listed above, which of the following could be the value of x ?

$$3, 4, 10, x, 15, 18, 21$$

(A) 5

(B) 8

(C) 9

(D) 14

(E) 16

8. In the examples below, we will use the table below listing employees years of service:

Years	0-4	5-9	10-14	14+	Totals
Males	12	6	17	21	56
Females	8	9	13	14	44
Totals	20	15	30	35	100

1. What is the probability of randomly selecting a female employee?

$$\frac{44}{100} = \frac{11}{25}$$

2. Given that the employee is male, what is the probability that they have less than 4 years of experience?

$$\frac{12}{56} = \frac{3}{14}$$

3. Given that the employee has between 10 and 14 years of experience, what is the probability that the employee is female?

$$\frac{13}{30}$$

4. What is the probability of randomly selected an employee with less than 14 years of experience given that they are female?

$$\frac{30}{44} = \frac{15}{22}$$