LESSON	Practice A		
11-5	Measures of Centra	I Tendency and Varia	tion
Find th	e mean, median, and mode o	of each data set.	
<b>1.</b> {3,	10, 2, 8, 7, 5, 2, 5}		
••••	The mean is the sum of the va by the number of values. Find		
	The median is the middle value ordered numerically. Find the r		
-	The mode is the value or value of the set		
<b>2.</b> {11	, 15, 4, 10, 7, 5, 11, 9}		
a.	Mean k	o. Median	<b>c.</b> Mode

## Find the expected values.

**3.** The probability distribution for the number of free throws that Larry makes in a game is given below. Find the expected number of free throws that Larry makes in a game.

Number of Free Throws Made, <i>n</i>	5	6	7	8
Probability	0.21	0.58	0.14	0.07

4. The probability distribution for the number of pieces of junk mail May receives is given below. Find the expected number of junk mail letters May receives in a day.

Number of Junk Mail Letters, n	1	2	3	4
Probability	0.15	0.70	0.10	0.05

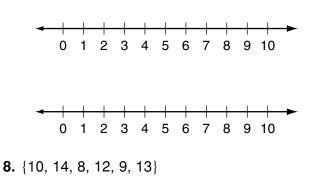
## Make a box-and-whisker plot of the data. Find the interquartile range.

**5.** {3, 7, 5, 3, 5, 9, 2, 7}

**6.** {1, 9, 9, 2, 2, 5, 5, 10}

## Find the variance and standard deviation.

**7.** {1, 2, 8, 11, 7, 10, 7, 2}



	LESSON Practice B
11-5 Measures of Central Tendency and Variation	<b>1155</b> Measures of Central Tendency and Variation
Find the mean, median, and mode of each data set.	Find the mean, median, and mode of each data set.
1. {3, 10, 2, 8, 7, 5, 2, 5}	<b>1.</b> {12, 11, 17, 3, 9, 14, 16, 2} <b>2.</b> {6, 9, 9, 20, 4, 5, 9, 13, 10, 1}
a. The mean is the sum of the values in a set divided by the number of values. Find the mean of the set. 5.25	a. Mean 10.5 a. Mean 8.6
b. The median is the middle value when the set is ordered numerically. Find the median of the set. 5	b. Median 9 c. Mode None c. Mode 9
c. The mode is the value or values that occur most	c. Mode C. Mode 9
often. Find the mode of the set	<b>3.</b> {3, 7, 7, 3, 10, 1, 6, 6}
<b>a.</b> Mean <b>b.</b> Median <b>c.</b> Mode	Interquartile range is 4.
9 9.5 11	
	4. {1, 2, 3, 5, 3, 5, 8, 2}
Find the expected values. 3. The probability distribution for the number of free throws	Interquartile range is 3.
that Larry makes in a game is given below. Find the	Find the variance and standard deviation.       0       1       2       3       4       5       6       7       8       9       10
expected number of free throws that Larry makes in a game. 6.07	<b>5.</b> {7, 4, 3, 9, 2} <b>6.</b> {35, 67, 21, 16, 24, 51, 18, 32}
Number of Free Throws Made, n 5 6 7 8	6.8; 2.6 278; 16.7
Probability 0.21 0.58 0.14 0.07	7. (19, 23, 17, 20, 25, 19, 15, 22)       8. (5, 12, 10, 13, 8, 11, 15, 12)         9.3; 3.0       8.4; 2.9
<ol> <li>The probability distribution for the number of pieces of junk mail May receives is given below. Find the expected</li> </ol>	0.4, 2.9
number of junk mail letters May receives in a day.	Solve.
Number of Junk Mail Letters, n 1 2 3 4	<ol> <li>The probability distribution for the amount of rain that falls on Boston in May each year is given below.</li> </ol>
Probability 0.15 0.70 0.10 0.05	Find the expected amount of rain for Boston in May. 7.01
Make a box-and-whisker plot of the data. Find the interquartile range.	Inches of Rain, n 5 6 7 8
5. {3, 7, 5, 3, 5, 9, 2, 7} Interquartile range is 4.	Probability 0.05 0.10 0.64 0.21
	<ol> <li>A biologist is growing bacteria in the lab. For a certain species of bacteria, she records these doubling times: 41 min, 45 min, 39 min, 42 min, 38 min,</li> </ol>
<b>6.</b> {1, 9, 9, 2, 2, 5, 5, 10}	88 min, 43 min, 40 min, 44 min, 39 min, 42 min, and 40 min.
Interquartile range is 7.	a. Find the mean of the data. 45.1 b. Find the standard deviation. 13.1
← + + + + + + + + + + + + + + + + + + +	c. Identify any outliers.
Find the variance and standard deviation.           7. {1, 2, 8, 11, 7, 10, 7, 2}         8. {10, 14, 8, 12, 9, 13}	
13; 3.6 4.7; 2.2	d. Describe how any outlier affects the mean and the standard deviation. The mean increases from ≈41.2 to ≈45.1, and the standard deviation increases from ≈2.1 to ≈13.1.
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ILES Measures of Central Tendency and Variation         Write a data set to satisfy the given conditions.         1. Median = 8; mode = 4       2. Mean = 10; median = 12         Possible answer: {4, 4, 8, 9, 10}       Possible answer: {3, 6, 12, 14, 15}         Make a box-and-whisker plot of the data. Find the interquartile range.       3. 21, 20, 4, 5, 5, 20, 20, 13, 1, 1, 13, 7, 13, 17, 7, 17, 9, 9         Interquartile range is 12.       Interquartile range is 12.         1       3       5         1       3       5       7         1       3       5       7         1       3       5       7       9         1       3       5       7       9       11	<b>IIES</b> Measures of Central Tendency and VariationExpected value can be thought of as the long-term average of an experiment after many trials.The table shows a probability distribution for the variable x. A probability distribution table pairs each outcome with its probability. $\boxed{\textbf{Outcome}  x_1  x_2  x_3  \dots  x_n \\ Probability  p_1  p_2  p_3  \dots  p_n \\ Expected value = x_1p_1 + x_2p_2 + x_3p_3 + \dots + x_np_n \end{aligned}}$
4. 10, 16, 3, 18, 18, 10, 8, 2, 9, 3, 7, 7, 8, 8, 18, 13, 7, 13       Interquartile range is 6.         4. 10, 16, 3, 18, 18, 10, 8, 2, 9, 3, 7, 7, 8, 8, 18, 13, 7, 13       Interquartile range is 6.         4. 10, 16, 3, 18, 18, 10, 8, 2, 9, 3, 7, 7, 8, 8, 18, 13, 7, 13       Interquartile range is 6.         4. 10, 16, 3, 18, 18, 10, 8, 2, 9, 3, 7, 7, 8, 8, 18, 13, 7, 13       Interquartile range is 6.         5. (13, 7, 16, 22, 26, 11, 12, 19, 9)       6. (4, 7, 28, 6, 1, 1, 10, 15, 48, 3, 4, 5)         35. 1; 5.9       176.2; 13.3         7. (15, 5, 12, 8, 19, 11, 7, 10, 9, 13, 17, 5)       8. (37, 29, 33, 30, 23, 28, 20, 35, 19, 21)         18.6; 4.3       37.6; 6.1	This table shows the probability distribution for the number of red marbles selected when 3 marbles are randomly selected without replacement from a bag with 4 red and 6 blue marbles. Find the expected number of red marbles selected. $\boxed{ \textbf{Outcome}  0  1  2  3 \\ \hline \textbf{Probability}  0.17  0.5  0.3  0.03 \\ \hline \textbf{In the formula for the expected value, n = 4.} \\ \hline \textbf{Expected value = x, p_1 + x_p p_2 + x_p p_3 + x_p p_4 \\ = 0(1.7) + 1(0.5) + 2(0.3) + 3(0.03) \\ = 0 + 0.5 + 0.6 + 0.09 = 1.19 \\ \hline \textbf{The expected number of red marbles is 1.19.} \\ \hline \textbf{Because the expected value is a type of average, it may not correspond exactly to any of the actual outcomes.} \\ \hline \textbf{The expected number of red marbles is 1.19.} \\ \hline \textbf$
4. 10, 16, 3, 18, 18, 10, 8, 2, 9, 3, 7, 7, 8, 8, 18, 13, 7, 13       Interquartile range is 6.         ••••••••••••••••••••••••••••••••••••	selected when 3 marbles are randomly selected without replacement from a bag with 4 red and 6 blue marbles. Find the expected number of red marbles selected. $\boxed{ \textbf{Outcome } 0 & 1 & 2 & 3 \\ \hline{ \textbf{Probability } 0.17 & 0.5 & 0.3 & 0.03 \\ \hline} \\ \text{In the formula for the expected value, } n = 4. \\ \text{Expected value } = x_1p_1 + x_2p_2 + x_3p_3 + x_4p_4 \\ = 0(0.17) + 1(0.5) + 2(0.3) + 3(0.03) \\ = 0 + 0.5 + 0.6 + 0.09 = 1.19 \\ \hline} \\ \text{The expected number of red marbles is 1.19.} \\ \hline}$
4. 10, 16, 3, 18, 18, 10, 8, 2, 9, 3, 7, 7, 8, 8, 18, 13, 7, 13       Interquartile range is 6.            •         •         •	selected when 3 marbles are randomly selected without replacement from a bag with 4 red and 6 blue marbles. Find the expected number of red marbles selected. $\begin{array}{ c c c c c }\hline\hline \textbf{Outcome} & 0 & 1 & 2 & 3 \\\hline\hline \textbf{Probability} & 0.17 & 0.5 & 0.3 & 0.03 \\\hline\hline \textbf{In the formula for the expected value, } n = 4. \\\hline\hline \textbf{Expected value} = x_{i}p_{1} + x_{2}p_{2} + x_{2}p_{3} + x_{4}p_{4} \\\hline\hline \textbf{e} & 0(1.07) + 1(0.5) + 2(0.3) + 3(0.03) \\\hline\hline \textbf{e} & 0 + 0.5 + 0.6 + 0.09 = 1.19 \\\hline\hline \textbf{The expected number of red marbles is 1.19.} \end{array}$
4. 10, 16, 3, 18, 18, 10, 8, 2, 9, 3, 7, 7, 8, 8, 18, 13, 7, 13 	selected when 3 marbles are randomly selected without replacement from         a bag with 4 red and 6 blue marbles. Find the expected number of red         marbles selected.         Outcome       0       1       2       3         Probability       0.17       0.5       0.3       0.03         In the formula for the expected value, $n = 4$ .       Expected value = $x_1p_1 + x_2p_2 + x_3p_3 + x_4p_4$ Because the expected value is a type of average, it may not correspond exactly to any of the actual outcomes.         The expected number of red marbles is 1.19.       The probability distribution of temperatures, in degrees Celsius, from a chemistry experiment is shown below. Find the expected value of
4. 10, 16, 3, 18, 18, 10, 8, 2, 9, 3, 7, 7, 8, 8, 18, 13, 7, 13       Interquartile range is 6.            •         •         •	selected when 3 marbles are randomly selected without replacement from a bag with 4 red and 6 blue marbles. Find the expected number of red marbles selected.Outcome0123Probability0.170.50.30.03In the formula for the expected value, $n = 4$ . Expected value = $x_1p_1 + x_2p_2 + x_2p_3 + x_4p_4$ = 0(0.17) + 1(0.5) + 2(0.3) + 3(0.03) = 0 + 0.5 + 0.6 + 0.09 = 1.19Because the expected value is a type of average, it may not correspond excutal outcomes.The expected number of red marbles is 1.19.The probability distribution of temperatures, in degrees Celsius, from a chemistry experiment is shown below. Find the expected value of the temperature during the experiment.Outcome45678
4. 10, 16, 3, 18, 18, 10, 8, 2, 9, 3, 7, 7, 8, 8, 18, 13, 7, 13       Interquartile range is 6.         4. 10, 16, 3, 18, 18, 10, 8, 2, 9, 3, 7, 7, 8, 8, 18, 13, 7, 13       Interquartile range is 6.         4. 10, 16, 3, 18, 18, 10, 8, 2, 9, 3, 7, 7, 8, 8, 18, 13, 7, 13       Interquartile range is 6.         4. 10, 16, 3, 18, 18, 10, 8, 2, 9, 3, 7, 7, 8, 8, 18, 13, 7, 13       Interquartile range is 6.         4. 10, 16, 3, 18, 18, 10, 18, 20, 9, 10, 12, 14, 16, 18, 20       Interquartile range is 6.         Find the variance and standard deviation.       6. [4, 7, 28, 6, 1, 1, 10, 15, 48, 3, 4, 5]         35. 1; 5.9       176.2; 13.3         7. [15, 5, 12, 8, 19, 11, 7, 10, 9, 13, 17, 5]       8. [37, 29, 33, 02, 32, 82, 03, 51, 9, 21]         18.6; 4.3       37.6; 6.1         Solve.         9. The probability distribution for the number of children per family in a particular suburb of Chicago is shown below.         Find the expected number of children per family in this region.       2.28         Number of Children, n       1       2       3         Number of Children, n       1       2       3         Probability       0.27       0.28       0.35	selected when 3 marbles are randomly selected without replacement from a bag with 4 red and 6 blue marbles. Find the expected number of red marbles selected. $\boxed{\frac{Outcome  0  1  2  3}{Probability  0.17  0.5  0.3  0.03}}$ In the formula for the expected value, $n = 4$ . Expected value $= x_1p_1 + x_2p_2 + x_2p_3 + x_4p_4$ = 0(0.17) + 1(0.5) + 2(0.3) + 3(0.03) = 0 + 0.5 + 0.6 + 0.09 = 1.19 The expected number of red marbles is 1.19. The probability distribution of temperatures, in degrees Celsius, from a chemistry experiment is shown below. Find the expected value of the temperature during the experiment. $\boxed{\frac{Outcome  4  5  6  7  8}{Probability  23  43  13  13  13  13  13  13  1$
4. 10, 16, 3, 18, 18, 10, 8, 2, 9, 3, 7, 7, 8, 8, 18, 13, 7, 13       Interquartile range is 6.         4. 10, 16, 3, 18, 18, 10, 8, 2, 9, 3, 7, 7, 8, 8, 18, 13, 7, 13       Interquartile range is 6.         4. 10, 16, 3, 18, 18, 10, 8, 2, 9, 3, 7, 7, 8, 8, 18, 13, 7, 13       Interquartile range is 6.         4. 10, 16, 3, 18, 18, 10, 8, 2, 9, 3, 7, 7, 8, 8, 18, 13, 7, 13       Interquartile range is 6.         4. 10, 16, 3, 18, 18, 10, 8, 2, 9, 3, 7, 7, 8, 8, 18, 13, 7, 13       Interquartile range is 6.         Find the variance and standard deviation.       5. [13, 7, 16, 22, 26, 11, 12, 19, 9]       6. [4, 7, 28, 6, 1, 1, 10, 15, 48, 3, 4, 5]         35. 1; 5.9       176.2; 13.3       176.2; 13.3         7. [15, 5, 12, 8, 19, 11, 7, 10, 9, 13, 17, 5]       8. [37, 29, 33, 02, 32, 28, 20, 35, 19, 21]         18.6; 4.3       37.6; 6.1         Solve.         9. The probability distribution for the number of children per family in this region.         10. A chemist weight samples obtained from a production run. The weights of the samples are 13 g, 14 g, 65 g, 11 g, 15 g, 14 g, 14 g, 12 g, 13 g, 15 g,         10. A chemist weights samples obtained from a production run. The weights of the samples are 13 g, 14 g, 65 g, 11 g, 15 g, 14 g, 14 g, 14 g, 12 g, 13 g, 15 g,	selected when 3 marbles are randomly selected without replacement from a bag with 4 red and 6 blue marbles. Find the expected number of red marbles selected. $\boxed{\text{Outcome}  0  1  2  3}{\text{Probability}  0.17  0.5  0.3  0.03}$ In the formula for the expected value, $n = 4$ . Expected value $= x, p_1 + xp_2 + xp_3 + xp_4$ = 0(0.17) + 1(0.5) + 2(0.3) + 3(0.03) The expected number of red marbles is 1.19. The probability distribution of temperatures, in degrees Celsius, from a chemistry experiment is shown below. Find the expected value of the temperature during the experiment. $\boxed{\text{Outcome}  4  5  6  7  8}{\text{Probability}  \frac{2}{13}  \frac{4}{13}  \frac{3}{13}  \frac{4}{13}  \frac{2}{13}  \frac{1}{13}  \frac{3}{13}  \frac{4}{13}  \frac{2}{13}$
4. 10, 16, 3, 18, 18, 10, 8, 2, 9, 3, 7, 7, 8, 8, 18, 13, 7, 13 Interquartile range is 6. 4. 10, 16, 3, 18, 18, 10, 8, 2, 9, 3, 7, 7, 8, 8, 18, 13, 7, 13 Interquartile range is 6. 4. 10, 16, 3, 18, 18, 10, 8, 2, 9, 3, 7, 7, 8, 8, 18, 13, 7, 13 Find the variance and standard deviation. 5. $[13, 7, 16, 22, 26, 11, 12, 19, 9]$ 6. $[4, 7, 28, 6, 1, 1, 10, 15, 48, 3, 4, 5]$ 35. $[13, 7, 16, 22, 26, 11, 12, 19, 9]$ 6. $[4, 7, 28, 6, 1, 1, 10, 15, 48, 3, 4, 5]$ 7. $[15, 5, 12, 8, 19, 11, 7, 10, 9, 13, 17, 5]$ 8. $[37, 29, 33, 30, 23, 28, 20, 35, 19, 21]$ 18.6; 4.3 Solve. 9. The probability distribution for the number of children per family in a particular suburb of Chicago is shown below. Find the expected number of children per family in this region. 2.28 Number of Children, $n$ 1 2 3 4 Probability 0.27 0.28 0.35 0.10 10. A chemist weighs samples obtained from a production run. The weights of the samples are 13 g, 14 g, 65 g, 11 g, 15 g, 14 g, 14 g, 12 g, 13 g, 15 g, 14 g, and 12 g.	selected when 3 marbles are randomly selected without replacement from a bag with 4 red and 6 blue marbles. Find the expected number of red marbles selected. $\boxed{\frac{Outcome  0  1  2  3}{Probability  0.17  0.5  0.3  0.03}}$ In the formula for the expected value, $n = 4$ . Expected value $= x_1p_1 + x_2p_2 + x_2p_3 + x_4p_4$ = 0(0.17) + 1(0.5) + 2(0.3) + 3(0.03) = 0 + 0.5 + 0.6 + 0.09 = 1.19 The expected number of red marbles is 1.19. The probability distribution of temperatures, in degrees Celsius, from a chemistry experiment is shown below. Find the expected value of the temperature during the experiment. $\boxed{\frac{Outcome  4  5  6  7  8}{Probability  23  43  13  13  13  13  13  13  1$
4. 10, 16, 3, 18, 18, 10, 8, 2, 9, 3, 7, 7, 8, 8, 18, 13, 7, 13       Interquartile range is 6.         4. 10, 16, 3, 18, 18, 10, 8, 2, 9, 3, 7, 7, 8, 8, 18, 13, 7, 13       Interquartile range is 6.         4. 10, 16, 3, 18, 18, 10, 8, 2, 9, 3, 7, 7, 8, 8, 18, 13, 7, 13       Interquartile range is 6.         4. 10, 16, 3, 18, 18, 10, 8, 2, 9, 3, 7, 7, 8, 8, 18, 13, 7, 13       Interquartile range is 6.         4. 10, 16, 3, 18, 18, 10, 8, 2, 9, 3, 7, 7, 8, 8, 18, 13, 7, 13       Interquartile range is 6.         Find the variance and standard deviation.       5. (13, 7, 16, 22, 26, 11, 12, 19, 9)       6. (4, 7, 28, 6, 1, 1, 10, 15, 48, 3, 4, 5)         35. 1; 5.9       176.2; 13.3       7. (15, 5, 12, 8, 19, 11, 7, 10, 9, 13, 17, 5)       8. (37, 29, 33, 30, 23, 28, 20, 35, 19, 21)         18.6; 4.3       37.6; 6.1       Solve.         9. The probability distribution for the number of children per family in this region.       2.28         Number of Children, n 1       2       3       4         Probability       0.27       0.28       0.35       0.10         10. A chemist weighs samples obtained from a production run. The weights of the samples are 13 g, 14 g, 65 g, 11 g, 15 g, 14 g, 14 g, 12 g, 13 g, 15 g, 14 g, and 12 g.       17.7         a. Find the mean of the data.       17.7	selected when 3 marbles are randomly selected without replacement from         a bag with 4 red and 6 blue marbles. Find the expected number of red         marbles selected. <u>Outcome</u> 0       1       2       3 <u>Probability</u> 0.17       0.5       0.3       0.03         In the formula for the expected value, $n = 4$ .       Expected value = $x_1p_1 + x_2p_2 + x_2p_3 + x_4p_4$ Because the expected value is a type of average, it may not correspond exactly to any of the actual outcomes. $= 0(0.17) + 1(0.5) + 2(0.3) + 3(0.03)$ $= 0 + 0.5 + 0.6 + 0.09 = 1.19$ Because the expected value of the expected number of red marbles is 1.19.         The expected number of red marbles is 1.19.       The probability distribution of temperatures, in degrees Celsius, from a chemistry experiment is shown below. Find the expected value of the temperature during the experiment. <u>Outcome</u> 4       5       6       7       8         Probability $\frac{2}{13}$ $\frac{3}{13}$ $\frac{1}{13}$ $\frac{1}{13}$ 1.3         1. To use the formula for expected value, $n = $ 5       .       .       .         2. Write the expected value formula to use.       .       .       .       .
4. 10, 16, 3, 18, 18, 10, 8, 2, 9, 3, 7, 7, 8, 8, 18, 13, 7, 13 Herquartile range is 6. 4. 10, 16, 3, 18, 18, 10, 8, 2, 9, 3, 7, 7, 8, 8, 18, 13, 7, 13 Herquartile range is 6. 4. 10, 16, 3, 18, 18, 10, 8, 2, 9, 3, 7, 7, 8, 8, 18, 13, 7, 13 Find the variance and standard deviation. 5. (13, 7, 16, 22, 26, 11, 12, 19, 9) 6. (4, 7, 28, 6, 1, 1, 10, 15, 48, 3, 4, 5) 35. 1; 5.9 7. (15, 5, 12, 8, 19, 11, 7, 10, 9, 13, 17, 5) 18. (37, 29, 33, 30, 23, 28, 20, 35, 19, 21) 18. 6; 4.3 50lve. 9. The probability distribution for the number of children per family in a particular suburb of Chicago is shown below. Find the expected number of children per family in this region. 2.28 Number of Children, n 1 2 3 4 Probability 0.27 0.28 0.35 0.10 10. A chemist weighs samples obtained from a production run. The weights of the samples are 13 g, 14 g, 65 g, 11 g, 15 g, 14 g, 14 g, 12 g, 13 g, 15 g, 14 g, and 12 g. a. Find the mean of the data. 17.7	selected when 3 marbles are randomly selected without replacement from a bag with 4 red and 6 blue marbles. Find the expected number of red marbles selected. $\boxed{\frac{\text{Outcome}  0  1  2  3}{\text{Probability}  0.17  0.5  0.3  0.03}}$ In the formula for the expected value, $n = 4$ . Expected value $= x_1p_1 + x_2p_2 + x_3p_3 + x_4p_4$ = 0(0.17) + 1(0.5) + 2(0.3) + 3(0.03) = 0 + 0.5 + 0.6 + 0.09 = 1.19 The expected number of red marbles is 1.19. The probability distribution of temperatures, in degrees Celsius, from a chemistry experiment is shown below. Find the expected value of the temperature during the experiment. $\boxed{\frac{\text{Outcome}  4  5  6  7  8}{\text{Probability}  \frac{2}{13}  \frac{4}{13}  \frac{3}{13}  \frac{4}{13}  \frac{2}{13}}{13}}$ 1. To use the formula for expected value, $n = \_$ 2. Write the expected value formula to use. $\_$ $\_$ $\_$ $\_$ $\_$ $\_$ $\_$ $\_$
4. 10, 16, 3, 18, 18, 10, 8, 2, 9, 3, 7, 7, 8, 8, 18, 13, 7, 13 Interquartile range is 6. 4. 10, 16, 3, 18, 18, 10, 8, 2, 9, 3, 7, 7, 8, 8, 18, 13, 7, 13 Find the variance and standard deviation. 5. $[13, 7, 16, 22, 26, 11, 12, 19, 9]$ 6. $[4, 7, 28, 6, 1, 1, 10, 15, 48, 3, 4, 5]$ 35. 1; 5. 9 7. $[15, 5, 12, 8, 19, 11, 7, 10, 9, 13, 17, 5]$ 8. $[37, 29, 33, 30, 23, 28, 20, 35, 19, 21]$ 18. 6; 4.3 Solve. 9. The probability distribution for the number of children per family in a particular suburb of Chicago is shown below. Find the expected number of children per family in a particular suburb of Chicago is shown below. Find the expected number of children per family in a particular suburb of Chicago is shown below. Find the samples are 13 g, 14 g, 65 g, 11 g, 15 g, 14 g, 14 g, 12 g, 13 g, 15 g, 14 g, and 12 g. a. Find the mean of the data. b. Find the standard deviation. c. Identify any outliers. d. Describe how any outlier affects the mean and the standard deviation.	selected when 3 marbles are randomly selected without replacement from a bag with 4 red and 6 blue marbles. Find the expected number of red marbles selected. $\boxed{\text{Outcome}  0  1  2  3} \\ \hline \text{Probability}  0.17  0.5  0.3  0.03 \\ \hline \text{In the formula for the expected value, } n = 4. \\ \hline \text{Expected value} = x_1p_1 + x_2p_2 + x_3p_3 + x_4p_4 \\ = 0(0.17) + 1(0.5) + 2(0.3) + 3(0.03) \\ = 0 + 0.5 + 0.6 + 0.09 = 1.19 \\ \hline \text{The expected number of red marbles is 1.19}. \\ \hline \text{The probability distribution of temperatures, in degrees Celsius, from a chemistry experiment is shown below. Find the expected value of the temperature during the experiment. \\ \hline \hline \text{Outcome}  4  5  6  7  8 \\ \hline \text{Probability}  \frac{2}{13}  \frac{4}{13}  \frac{3}{13}  \frac{4}{13}  \frac{2}{13} \\ \hline \text{1. To use the formula for expected value, } n =  5 \\ \hline \text{2. Write the expected value formula to use.} \\ \hline \hline \text{Expected value of the temperature during the experiment.} \\ \hline \hline \text{Structure of value of the temperature during the experiment.} \\ \hline \hline \text{2. Write the expected value of the temperature during the experiment.} \\ \hline \ \text{2. Write the expected value of the temperature during the experiment.} \\ \hline \ \text{2. Write the expected value of the temperature during the experiment.} \\ \hline \ \ \text{2. Write the expected value of the temperature during the experiment.} \\ \hline \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$
4. 10, 16, 3, 18, 18, 10, 8, 2, 9, 3, 7, 7, 8, 8, 18, 13, 7, 13       Interquartile range is 6.         ••••••••••••••••••••••••••••••••••••	selected when 3 marbles are randomly selected without replacement from a bag with 4 red and 6 blue marbles. Find the expected number of red marbles selected. $\boxed{\frac{\text{Outcome}  0  1  2  3}{\text{Probability}  0.17  0.5  0.3  0.03}}$ In the formula for the expected value, $n = 4$ . Expected value $= x_1p_1 + x_2p_2 + x_3p_3 + x_4p_4$ = 0(0.17) + 1(0.5) + 2(0.3) + 3(0.03) = 0 + 0.5 + 0.6 + 0.09 = 1.19 The expected number of red marbles is 1.19. The probability distribution of temperatures, in degrees Celsius, from a chemistry experiment is shown below. Find the expected value of the temperature during the experiment. $\boxed{\frac{\text{Outcome}  4  5  6  7  8}{13  13  13  13}}$ 1. To use the formula for expected value, $n = \_5$ . 2. Write the expected value formula to use. $\_Expected value = x_1p_1 + x_2p_2 + x_3p_3 + x_4p_4 + x_5p_5$