Grouped Frequency Table Worksheet

Statistics and Probability

Grades 6 to 8

Skill Questions

Name: ....

Date: ....

1 Sort these 20 items into the grouped frequency table.

15	9	11	7	12
6	14	8	19	27
2	2	31	35	16
13	20	2	32	39

Groups	Frequency
1 to 10	
11 to 20	
21 to 30	
31 to 40	

2 Sort these 20 items into the grouped frequency table.

2.5	1.9	1.3	0.4	1.3
0.8	2.4	0.2	1.5	2.6
0.4	0.1	2.1	2.5	3.6
3.3	2.3	1.2	2.2	3.8

Groups	Frequency
$0 < x \leq 1$	
$1 < x \leq 2$	
$2 < x \leq 3$	
$3 < x \leq 4$	

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3 Sort these items into the grouped frequency table.

$$1\frac{3}{4} \qquad 1\frac{3}{4} \qquad \frac{2}{3} \qquad 2\frac{1}{5} \qquad 2\frac{7}{9}$$

$$\frac{1}{6} \qquad \frac{3}{8} \qquad 1\frac{6}{7} \qquad \frac{9}{10} \qquad 2\frac{3}{5}$$

$$1\frac{5}{6} \qquad 2\frac{1}{2} \qquad 1\frac{2}{9} \qquad \frac{7}{8} \qquad 1\frac{2}{5}$$

Groups	Frequency
$0 < x \le \frac{1}{2}$	
$\frac{1}{2} < x \le 1$	
$1 < x \le 1\frac{1}{2}$	
$1\frac{1}{2} < x \le 2$	
$2 < x \le 2\frac{1}{2}$	
$2\frac{1}{2} < x \le 3$	

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4 Create a grouped frequency table that has four groups of data.

55	57	40	43	64
71	52	64	62	42
76	87	59	53	51
42	74	81	50	59
48	76	71	47	51

Groups	Frequency

5 Sort these 25 items into the grouped frequency table and find the cumulative frequency.

14	7	10	13	24
21	12	4	2	12
16	17	19	3	21
22	24	21	20	9
8	16	11	17	21

Groups	Frequency	Cumulative Frequency
0 - 4		
5 - 9		
10 - 14		
15 - 19		
20 - 24		

6 Create a grouped frequency table that has three groups of data, then calculate the cumulative frequency.

11	18	20	19	15
14	17	18	14	11
13	15	13	19	17

Groups	Frequency	Cumulative Frequency

7 Complete the frequency table.

Groups	Frequency	Cumulative Frequency	Relative Frequency
$0 < x \leq 10$	5		
$10 < x \leq 20$	7		
$20 < x \leq 30$	4		
$30 < x \leq 40$	9		

8 Complete the frequency table.

Groups	Frequency	Relative Frequency
$0 < x \leq 10$	12	
$10 < x \leq 20$	3	
$20 < x \leq 30$	11	
$30 < x \leq 40$	15	
$40 < x \leq 50$	3	
$50 < x \leq 60$	0	
$60 < x \leq 70$	6	

9 Complete the frequency table.

Groups	Frequency	Relative Frequency
$0 < x \leq \dfrac{1}{3}$	5	
$\dfrac{1}{3} < x \leq \dfrac{2}{3}$	1	
$\dfrac{2}{3} < x \leq 1$	1	
$1 < x \leq 1\dfrac{1}{3}$	3	
$1\dfrac{1}{3} < x \leq 1\dfrac{2}{3}$	8	
$1\dfrac{2}{3} < x \leq 2$	2	

10 Create a grouped frequency table that has three groups of data, then calculate the relative frequency.

34	38	40	49	35
34	47	38	44	41
43	35	43	44	47

Groups	Frequency	Relative Frequency

Applied Questions

11
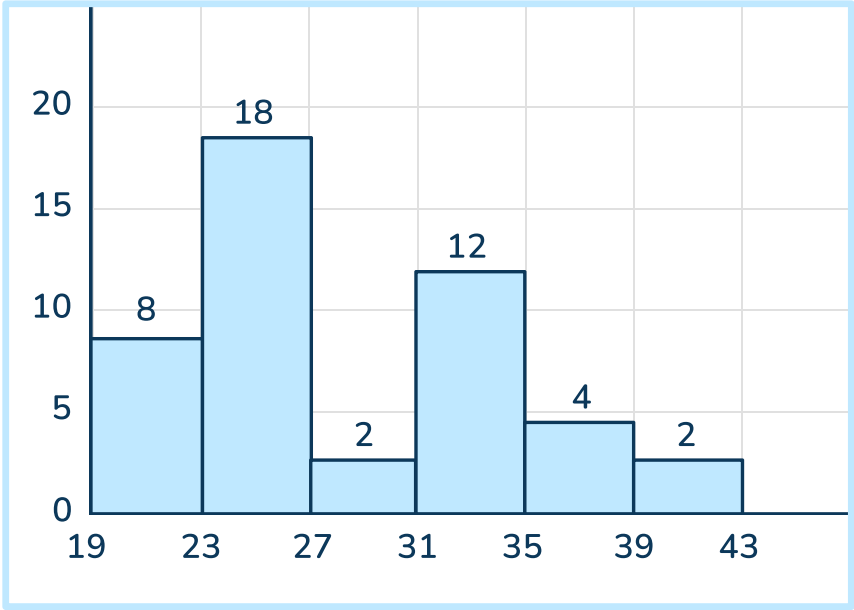
Create a grouped frequency table to match the histogram.

Groups	Frequency

12 Complete the frequency table.

Groups	Frequency	Cumulative Frequency
$-20 < x \leq -10$		8
$-10 < x \leq 0$		11
$0 < x \leq 10$		17
$10 < x \leq 20$		24

13 Complete the table with data points that match the frequency table.

Groups	Frequency	Data points
$0 < x \leq 0.5$	2	
$0.5 < x \leq 1$	3	
$1 < x \leq 1.5$	7	
$1.5 < x \leq 2$	1	

14 Stella completed this frequency table. Explain how Stella solved it and whether or not there are mistakes.

Groups	Frequency	Cumulative Frequency	Relative Frequency
10 - 13	4	4	$\frac{4}{4} = 100\%$
14 -17	7	11	$\frac{7}{11} = 63.6\%$
18 - 21	4	15	$\frac{4}{15} = 26.6\%$

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15 The data set has 20 data points. Complete the frequency table.

Groups	Frequency	Relative Frequency
5 - 9		20%
10 - 14		40%
15 - 19		10%
20 - 24		30%

Answers

Question number	Question	Answers	Standard
1	Sort these 20 items into the grouped frequency table. 15 9 11 7 12 6 14 8 19 27 2 2 31 35 16 13 20 2 32 39 Groups / Frequency: 1 to 10; 11 to 20; 21 to 30; 31 to 40	<table><tr><th>Groups</th><th>Frequency</th></tr><tr><td>1 to 10</td><td>7</td></tr><tr><td>11 to 20</td><td>8</td></tr><tr><td>21 to 30</td><td>1</td></tr><tr><td>31 to 40</td><td>4</td></tr></table>	6.SP.B.4
2	Sort these 20 items into the grouped frequency table. 2.5 1.9 1.3 0.4 1.3 0.8 2.4 0.2 1.5 2.6 0.4 0.1 2.1 2.5 3.6 3.3 2.3 1.2 2.2 3.8 Groups: $0 < x \le 1$; $1 < x \le 2$; $2 < x \le 3$; $3 < x \le 4$	Groups / Frequency: $0 < x \le 1$ → 5 $1 < x \le 2$ → 5 $2 < x \le 3$ → 7 $3 < x \le 4$ → 3	6.SP.B.4
3	Sort these items into the grouped frequency table. $1\frac{3}{4}$ $1\frac{3}{4}$ $\frac{2}{3}$ $2\frac{1}{5}$ $2\frac{7}{9}$ $\frac{1}{6}$ $\frac{3}{8}$ $1\frac{6}{7}$ $\frac{9}{10}$ $2\frac{3}{5}$ $1\frac{5}{6}$ $2\frac{1}{2}$ $1\frac{2}{9}$ $\frac{7}{8}$ $1\frac{2}{5}$ Groups: $0 < x \le \frac{1}{2}$; $\frac{1}{2} < x \le 1$; $1 < x \le 1\frac{1}{2}$; $1\frac{1}{2} < x \le 2$; $2 < x \le 2\frac{1}{2}$; $2\frac{1}{2} < x \le 3$	Groups / Frequency: $0 < x \le \frac{1}{2}$ → 2 $\frac{1}{2} < x \le 1$ → 3 $1 < x \le 1\frac{1}{2}$ → 2 $1\frac{1}{2} < x \le 2$ → 4 $2 < x \le 2\frac{1}{2}$ → 2 $2\frac{1}{2} < x \le 3$ → 2	6.SP.B.4
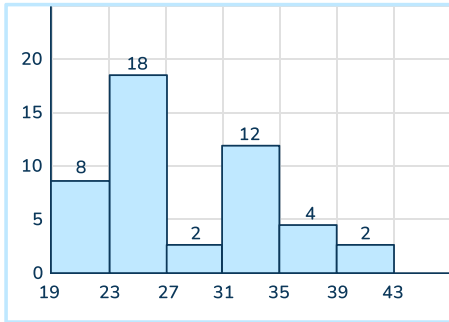
Question number	Question	Answers	Standard
4	Create a grouped frequency table that has four groups of data. 55 57 40 43 64 71 52 64 62 42 76 87 59 53 51 42 74 81 50 59 48 76 71 47 51 (empty Groups / Frequency table)	*Answers may vary.* Example answer: **Groups / Frequency** 40 - 54 — 11 55 - 59 — 4 60 - 74 — 6 75 - 89 — 4	6.SP.B.4
5	Sort these 25 items into the grouped frequency table and find the cumulative frequency. 14 7 10 13 24 21 12 4 2 12 16 17 19 3 21 22 24 21 20 9 8 16 11 17 21 (Groups / Frequency / Cumulative Frequency table with groups 0-4, 5-9, 10-14, 15-19, 20-24)	**Groups / Frequency / Cumulative Frequency** 0 - 4 — 3 — 3 5 - 9 — 3 — 6 10 - 14 — 6 — 12 15 - 19 — 5 — 17 20 - 24 — 8 — 25	6.SP.B.4
6	Create a grouped frequency table that has three groups of data, then calculate the cumulative frequency. 11 18 20 19 15 14 17 18 14 11 13 15 13 19 17 (empty Groups / Frequency / Cumulative Frequency table)	Total cumulative frequency is 15. *Group ranges may vary.* Example answer: **Groups / Frequency / Cumulative Frequency** 10 - 13 — 4 — 4 14 - 17 — 6 — 10 18 - 21 — 5 — 15	6.SP.B.4

Question number	Question	Answers	Standard
7	Complete the frequency table. 		6.SP.B.4

Question 7 table:

Groups	Frequency	Cumulative Frequency	Relative Frequency
$0 < x \le 10$	5		
$10 < x \le 20$	7		
$20 < x \le 30$	4		
$30 < x \le 40$	9		

Question 7 answer table:

Groups	Frequency	Cumulative Frequency	Relative Frequency
$0 < x \le 10$	5	5	$\frac{5}{25} = 20\%$
$10 < x \le 20$	7	12	$\frac{7}{25} = 28\%$
$20 < x \le 30$	4	16	$\frac{4}{25} = 16\%$
$30 < x \le 40$	9	25	$\frac{9}{25} = 36\%$

Question 8 — Complete the frequency table. (Standard 6.SP.B.4)

Groups	Frequency	Relative Frequency
$0 < x \le 10$	12	
$10 < x \le 20$	3	
$20 < x \le 30$	11	
$30 < x \le 40$	15	
$40 < x \le 50$	3	
$50 < x \le 60$	0	
$60 < x \le 70$	6	

Question 8 answer table:

Groups	Frequency	Relative Frequency
$0 < x \le 10$	12	$\frac{12}{50} = 24\%$
$10 < x \le 20$	3	$\frac{3}{50} = 6\%$
$20 < x \le 30$	11	$\frac{11}{50} = 22\%$
$30 < x \le 40$	15	$\frac{15}{50} = 30\%$
$40 < x \le 50$	3	$\frac{3}{50} = 6\%$
$50 < x \le 60$	0	$\frac{0}{50} = 0\%$
$60 < x \le 70$	6	$\frac{6}{50} = 12\%$

Question 9 — Complete the frequency table. (Standard 6.SP.B.4)

Groups	Frequency	Relative Frequency
$0 < x \le \frac{1}{3}$	5	
$\frac{1}{3} < x \le \frac{2}{3}$	1	
$\frac{2}{3} < x \le 1$	1	
$1 < x \le 1\frac{1}{3}$	3	
$1\frac{1}{3} < x \le 1\frac{2}{3}$	8	
$1\frac{2}{3} < x \le 2$	2	

Question 9 answer table:

Groups	Frequency	Relative Frequency
$0 < x \le \frac{1}{3}$	5	$\frac{5}{20} = 25\%$
$\frac{1}{3} < x \le \frac{2}{3}$	1	$\frac{1}{20} = 5\%$
$\frac{2}{3} < x \le 1$	1	$\frac{1}{20} = 5\%$
$1 < x \le 1\frac{1}{3}$	3	$\frac{3}{20} = 15\%$
$1\frac{1}{3} < x \le 1\frac{2}{3}$	8	$\frac{8}{20} = 40\%$
$1\frac{2}{3} < x \le 2$	2	$\frac{2}{20} = 10\%$

Grouped Frequency Table Worksheet | Grades 6 to 8 | Answers

Question number	Question	Answers	Standard
10	Create a grouped frequency table that has three groups of data, then calculate the relative frequency. 34 38 40 49 35 34 47 38 44 41 43 35 43 44 47 Table: Groups / Frequency / Relative Frequency (empty)	Total relative frequency is 100%. *Group ranges may vary.* Example answer: Groups / Frequency / Cumulative Frequency: 34 - 39 / 6 / $\frac{6}{15}$ = 40% 40 - 45 / 6 / $\frac{6}{15}$ = 40% 46 - 51 / 3 / $\frac{3}{15}$ = 20%	6.SP.B.4
11	Create a grouped frequency table to match the histogram. Table: Groups / Frequency (empty)	Groups / Frequency: $19 < x \leq 23$ / 8 $23 < x \leq 27$ / 18 $27 < x \leq 31$ / 2 $31 < x \leq 35$ / 12 $35 < x \leq 39$ / 4 $39 < x \leq 43$ / 2	6.SP.B.4
12	Complete the frequency table. Groups / Frequency / Cumulative Frequency: $-20 < x \leq -10$ / / 8 $-10 < x \leq 0$ / / 11 $0 < x \leq 10$ / / 17 $10 < x \leq 20$ / / 24	Groups / Frequency / Cumulative Frequency: $-20 < x \leq -10$ / 8 / 8 $-10 < x \leq 0$ / 3 / 11 $0 < x \leq 10$ / 6 / 17 $10 < x \leq 20$ / 7 / 24	6.SP.B.4

Grouped Frequency Table Worksheet | Grades 6 to 8 | Answers

Question number	Question	Answers	Standard
13	Complete the table with data points that match the frequency table. <table><tr><td>Groups</td><td>Frequency</td><td>Data points</td></tr><tr><td>$0 < x \leq 0.5$</td><td>2</td><td></td></tr><tr><td>$0.5 < x \leq 1$</td><td>3</td><td></td></tr><tr><td>$1 < x \leq 1.5$</td><td>7</td><td></td></tr><tr><td>$1.5 < x \leq 2$</td><td>1</td><td></td></tr></table>	*Answers will vary.* Example answer: <table><tr><td>Groups</td><td>Frequency</td><td>Data points</td></tr><tr><td>$0 < x \leq 0.5$</td><td>2</td><td>0.1, 0.2</td></tr><tr><td>$0.5 < x \leq 1$</td><td>3</td><td>0.6, 1, 1</td></tr><tr><td>$1 < x \leq 1.5$</td><td>7</td><td>1.1, 1.2, 1.2, 1.3, 1.4, 1.5, 1.5</td></tr><tr><td>$1.5 < x \leq 2$</td><td>1</td><td>1.85</td></tr></table>	6.SP.B.4
14	Stella completed this frequency table. Explain how Stella solved it and whether or not there are mistakes. <table><tr><td>Groups</td><td>Frequency</td><td>Cumulative Frequency</td><td>Relative Frequency</td></tr><tr><td>10 - 13</td><td>4</td><td>4</td><td>$\frac{4}{4}$ = 100%</td></tr><tr><td>14 - 17</td><td>7</td><td>11</td><td>$\frac{7}{11}$ = 63.6%</td></tr><tr><td>18 - 21</td><td>4</td><td>15</td><td>$\frac{4}{15}$ = 26.6%</td></tr></table>	*Explanations will vary.* Example answer: Stella took the frequencies of each group and then kept adding them to make the cumulative frequency. Then Stella calculated the relative frequency but did not use 30 as the denominator, so the percents are incorrect.	6.SP.B.4
15	The data set has 20 data points. Complete the frequency table. <table><tr><td>Groups</td><td>Frequency</td><td>Relative Frequency</td></tr><tr><td>5 - 9</td><td></td><td>20%</td></tr><tr><td>10 - 14</td><td></td><td>40%</td></tr><tr><td>15 - 19</td><td></td><td>10%</td></tr><tr><td>20 - 24</td><td></td><td>30%</td></tr></table>	<table><tr><td>Groups</td><td>Frequency</td><td>Relative Frequency</td></tr><tr><td>5 - 9</td><td>4</td><td>20%</td></tr><tr><td>10 - 14</td><td>8</td><td>40%</td></tr><tr><td>15 - 19</td><td>2</td><td>10%</td></tr><tr><td>20 - 24</td><td>6</td><td>30%</td></tr></table>	6.SP.B.4

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