**Mid-Module Assessment Task**

Name _____   Date _____

1. The most common women's shoe size in the U.S. is reported to be an $8\frac{1}{2}$. A shoe store uses a table like the one below to decide how many pairs of size $8\frac{1}{2}$ shoes to buy when it places a shoe order from the shoe manufacturers.

Total Number of Pairs of Shoes Being Ordered	Number of Pairs of Size $8\frac{1}{2}$ to Order
50	8
100	16
150	24
200	32

a. What is the ratio of the number of pairs of size $8\frac{1}{2}$ shoes the store orders to the total number of pairs of shoes being ordered?

b. Plot the values from the table on a coordinate plane. Label the axes. Then use the graph to find the number of pairs of size $8\frac{1}{2}$ shoes the store orders for a total order of 125 pairs of shoes.
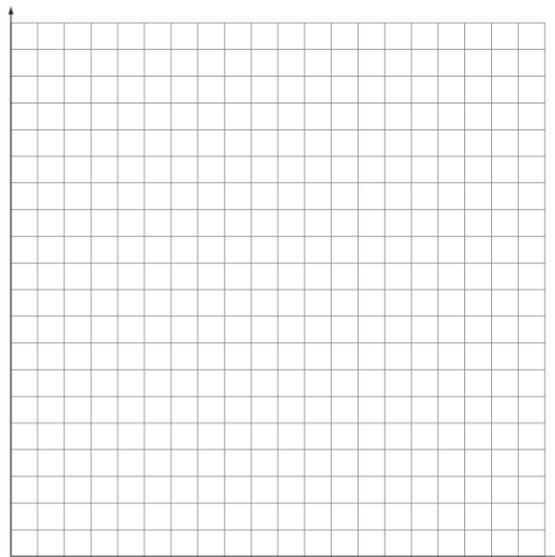
2. Wells College in Aurora, New York was previously an all-girls college. In 2005, the college began to allow boys to enroll. By 2012, the ratio of boys to girls was 3 to 7. If there were 200 *more girls than boys* in 2012, how many boys were enrolled that year? Use a table, graph, or tape diagram to justify your answer.

3. Most television shows use 13 *minutes of every hour* for commercials, leaving the remaining 47 minutes for the actual show. One popular television show wants to change the ratio of commercial time to show time to be $3: 7$. Create two ratio tables, one for the normal ratio of commercials to programming and another for the proposed ratio of commercials to programming. Use the ratio tables to make a statement about which ratio would mean fewer commercials for viewers watching 2 hours of television.

A Progression Toward Mastery					
Assessment Task Item		**STEP 1** **Missing or incorrect answer and little evidence of reasoning or application of mathematics to solve the problem.**	**STEP 2** **Missing or incorrect answer but evidence of some reasoning or application of mathematics to solve the problem.**	**STEP 3** **A correct answer with some evidence of reasoning or application of mathematics to solve the problem, or an incorrect answer with substantial evidence of solid reasoning or application of mathematics to solve the problem.**	**STEP 4** **A correct answer supported by substantial evidence of solid reasoning or application of mathematics to solve the problem.**
1	**a** **6.RP.A.1** **6.RP.A.3a**	Student provided an incorrect ratio and did not reflect an associated ratio. The student does not display an understanding of determining ratio using a ratio table.	Student provided an associated ratio, such as $25:4$. It may or may not have been expressed in the smallest unit possible. There is evidence that the student understood how to determine a ratio from a ratio table but lacked attentiveness to the precision for which the ratio was being asked.	Student provided the correct ratio, $4:25$, but may have been expressed using a larger unit, such as $8:50$. The notation or wording of the ratio statement may have had minor errors.	Student provided the correct ratio, $4:25$. The notation and/or wording of the ratio statement were correct.
	b **6.RP.A.1** **6.RP.A.3a**	Student did not produce a graph, or the graph did not accurately depict the pairs from the table. The student was unable to answer the question correctly.	Student depicted a graph, but the graph contained more than one error in its depiction, such as not going through the given points, not labeling the axes, or not depicting a line through the origin. The student may or may not have answered the question correctly.	Student depicted a graph, but the graph contained a minor error in its depiction, such as not accurately plotting the given points, not labeling the axes, or depicting a line that just missed going through the origin. The student answered the question correctly or incorrectly, but the answer would have been correct given the depiction of the graph.	Student depicted the graph correctly, including plotting the given points, labeling the axes, <u>AND</u> depicting a line that goes through the origin. The student answered the question correctly, and the answer was represented in the graph.

2	6.RP.A.3 (Stem Only)	Student was unable to answer the question. The student was not able to accurately depict the ratio of boys to girls or showed no evidence of moving beyond that basic depiction.	Student depicted the ratio of boys to girls and showed some evidence of using the depiction to solve the problem but was unable to come to a correct answer. The answer was either incomplete or incorrect.	Student was able to choose a depiction of the ratio and to incorporate the other information given into the depiction but made an error in arriving at the answer.	Student was able to choose a depiction of the ratio of boys to girls and incorporate into the depiction the additional information of the difference between the number of girls and the number of boys. The student was able to use the depiction to arrive at the correct answer.
3	6.RP.A.3a	Student was unable to complete the two tables or was unable to fill in at least one row in each table. The student was unable to compose a reasonably accurate comparison of which option would be better for viewers.	Student constructed ratio tables with at least one entry in each table and demonstrated some reasoning in making a statement of comparison, even if the statement did not match the table entries.	Student made two ratio tables with at least two entries in each table. There were one or more errors in the entries of the table. The student was able to make a statement of comparison of which option was better for viewers based on the entries provided in the table.	Student made two ratio tables with at least two entries in each table. The student was able to make an accurate comparison of which option was better for viewers and relate the comparison to a 2-hour show using accurate grade-level language.

Name _____   Date _____

1. The most common women's shoe size in the U.S. is reported to be an $8\frac{1}{2}$. A shoe store uses a table like the one below to decide how many pairs of size $8\frac{1}{2}$ shoes to buy when it places a shoe order from the shoe manufacturers.

Total Number of Pairs of Shoes Being Ordered	Number of Pairs of Size $8\frac{1}{2}$ to Order
50	8
100	16
150	24
200	32

a. What is the ratio of the number of pairs of size $8\frac{1}{2}$ shoes the store orders to the total number of pairs of shoes being ordered?

The ratio of size 8½ shoes to the total number

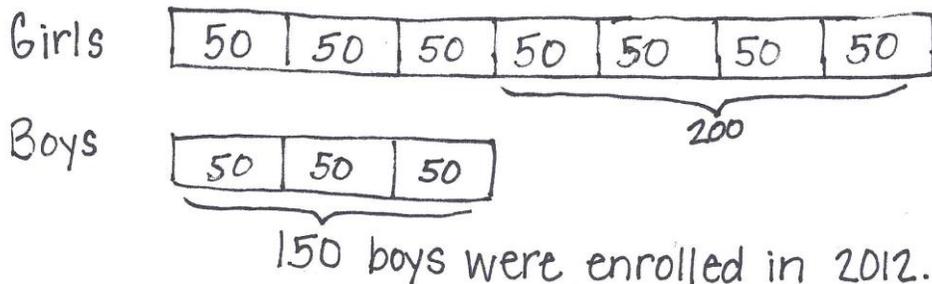The ratio of the number of pairs of size 8½ shoes to the total number of pairs of shoes ordered is 4:25

b. Plot the values from the table on a coordinate plane. Label the axes. Then use the graph to find the number of pairs of size $8\frac{1}{2}$ shoes the store orders for a total order of 125 pairs of shoes.
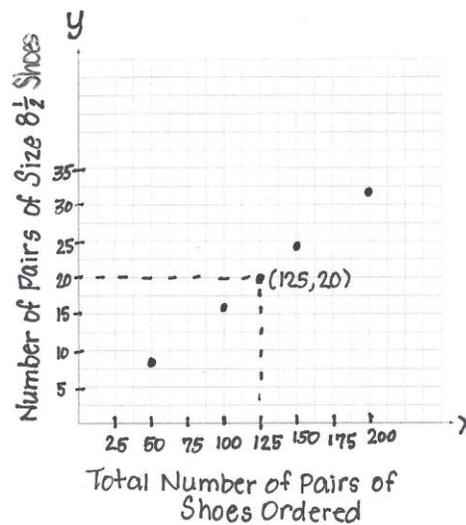
They should order 20 pairs of size 8½ shoes if the total order is 125 pairs of shoes.

2. Wells College in Aurora, New York was previously an all-girls college. In 2005, the college began to allow boys to enroll. By 2012, the ratio of boys to girls was 3 to 7. If there were 200 *more girls than boys* in 2012, how many boys were enrolled that year? Use a table, graph, or tape diagram to justify your answer.

Girls | 50 | 50 | 50 | 50 | 50 | 50 | 50 |

Boys | 50 | 50 | 50 |

200

150 boys were enrolled in 2012.

3. Most television shows use 13 *minutes of every hour* for commercials, leaving the remaining 47 minutes for the actual show. One popular television show wants to change the ratio of commercial time to show time to be $3:7$. Create two ratio tables, one for the normal ratio of commercials to programming and another for the proposed ratio of commercials to programming. Use the ratio tables to make a statement about which ratio would mean fewer commercials for viewers watching 2 hours of television.

Normal

Total Time	Commercial Time	Show Time
60	13	47
120	26	94

Changed

Total Time	Commercial Time	Show Time
10	3	7
60	18	42
120	36	84

The normal way is better for viewers. In a 2 hour show, the normal way uses 26 minutes for commercials, but the proposed way would use 36 minutes for commercials.