Solve the following ratios using the BAR DIAGRAM model.

1. The ratio of number of text messages sent by Lucas to the number of text messages sent by his sister is 3 : 4. Lucas sent 18 text messages. How many text messages did his sister send?

_____ text messages

2. Josie took a long multiple choice test. The ratio of the questions she got incorrect to the number of problems she got correct was 4 : 9. If there were 65 questions on the test, how many did Josie get incorrect?

_____ incorrect

3. At a country concert, the ratio of the number of boys to the number of girls is 2 : 7. If there were 350 girls at the concert, how many total people were there?

_____ total people

4. At the Speedy Fast Ski Resort, the ratio of number of skiers to the number of snowboarders is 7 : 5. If there are 28 more skiers than snowboarders there, how many skiers were at the resort? How many snowboarders?

_____ skiers

_____ snowboarders

5. For a project in their health class, Jasmine and Brenda recorded the amount of milk they drank every day. The ratio of amount Jasmine drank to the amount Brenda drank was 3 : 2. If Jasmine drank 12 pints of milk, how much more milk did she drink than Brenda?

_____ pints more than Brenda

6. Heritage Middle School has 150 students. If two out of every three students prefer math over ELA how many more students prefer math than ELA?

_____ students

7. For every five dollars that Pam saves in her account, her brother saves two dollars in his account. Today, Pam has 36 more dollars in her account than her brother. How much do they each have in their account?

Pam $_____

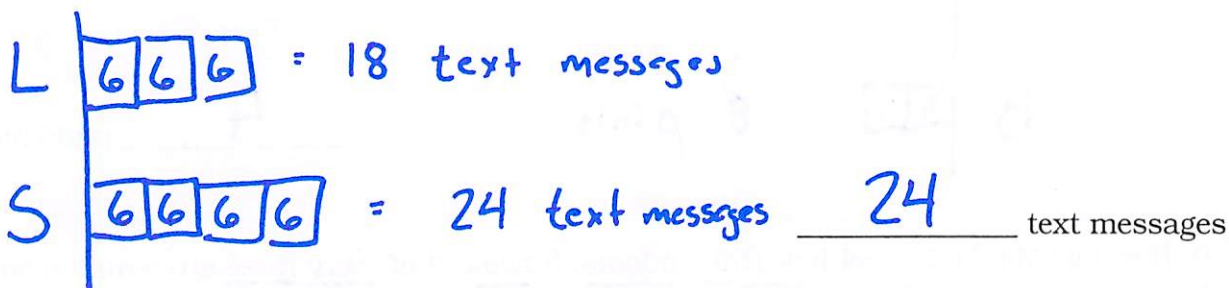Her brother $_____

8. A survey found that 12 out of every 15 people in the United States prefer eating at a restaurant over cooking at home. If 400 people selected eating at a restaurant on the survey, how many people took the survey?

_____ total people

Solving Ratio Problems Day 1 Homework   Name ___**Key**___

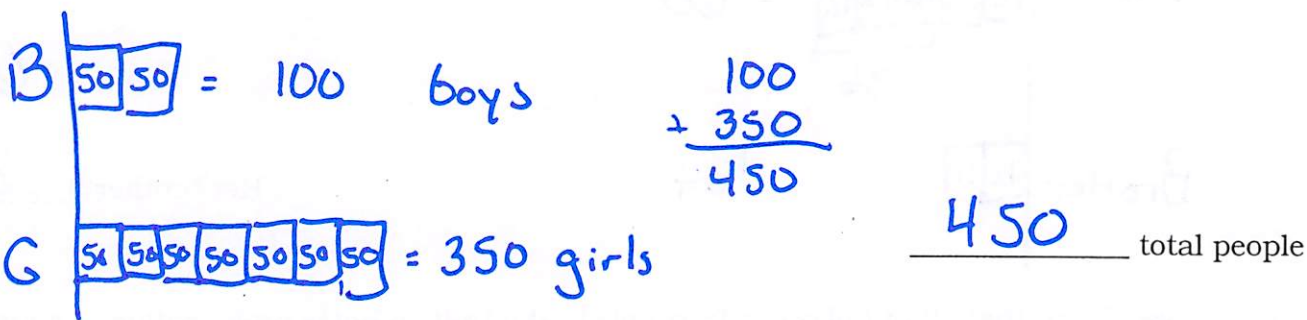**Solve the following ratios using the BAR DIAGRAM model.**

1. The ratio of number of text messages sent by Lucas to the number of text messages sent by his sister is 3 : 4. Lucas sent 18 text messages. How many text messages did his sister send?

L | 6 | 6 | 6 | = 18 text messages

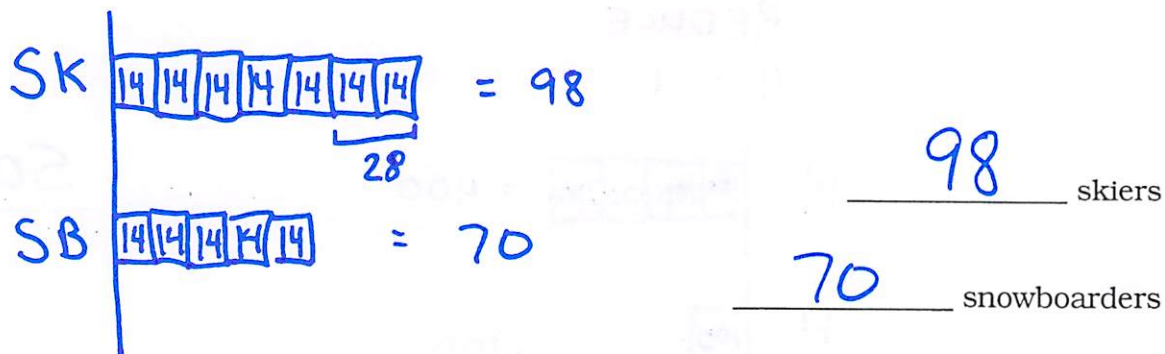S | 6 | 6 | 6 | 6 | = 24 text messages   ___24___ text messages

2. Josie took a long multiple choice test. The ratio of the questions she got incorrect to the number of problems she got correct was 4 : 9. If there were 65 questions on the test, how many did Josie get incorrect?

I | 5 | 5 | 5 | 5 | = 20

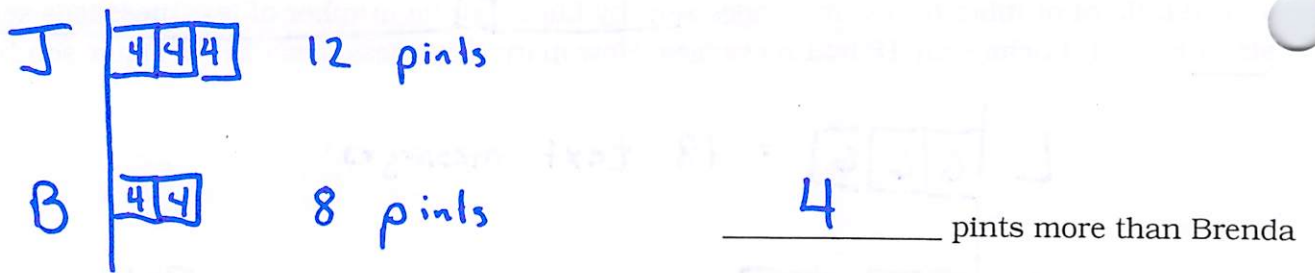C | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | ___20___ incorrect

3. At a country concert, the ratio of the number of boys to the number of girls is 2 : 7. If there were 350 girls at the concert, how many total people were there?

B | 50 | 50 | = 100   boys

$$\begin{array}{r} 100 \\ + 350 \\ \hline 450 \end{array}$$

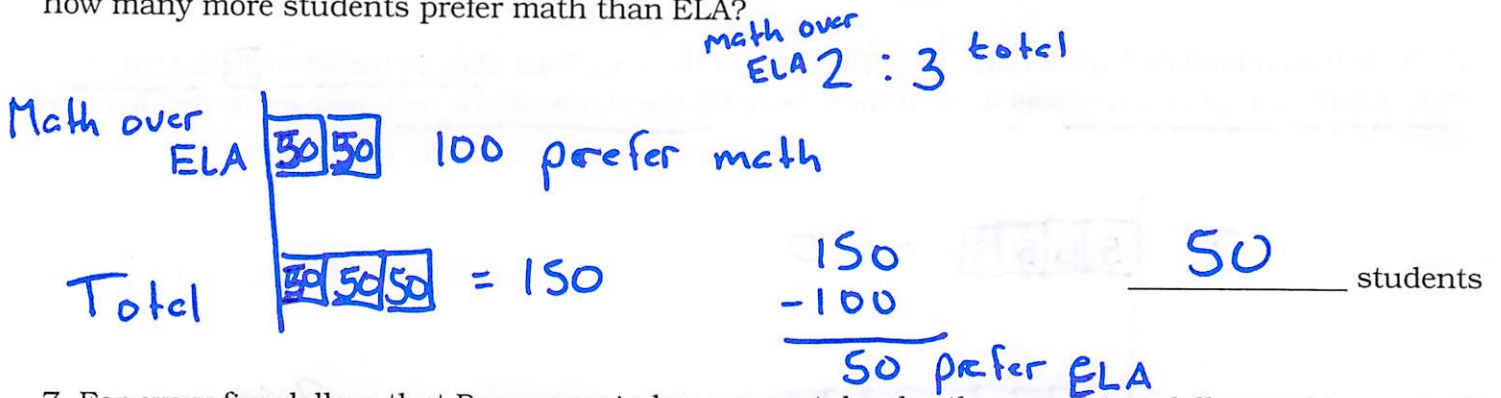G | 50 | 50 | 50 | 50 | 50 | 50 | 50 | = 350 girls   ___450___ total people

4. At the Speedy Fast Ski Resort, the ratio of number of skiers to the number of snowboarders is 7 : 5. If there are 28 more skiers than snowboarders there, how many skiers were at the resort? How many snowboarders?

SK | 14 | 14 | 14 | 14 | 14 | 14 | 14 | = 98
                                28

___98___ skiers

SB | 14 | 14 | 14 | 14 | 14 | = 70
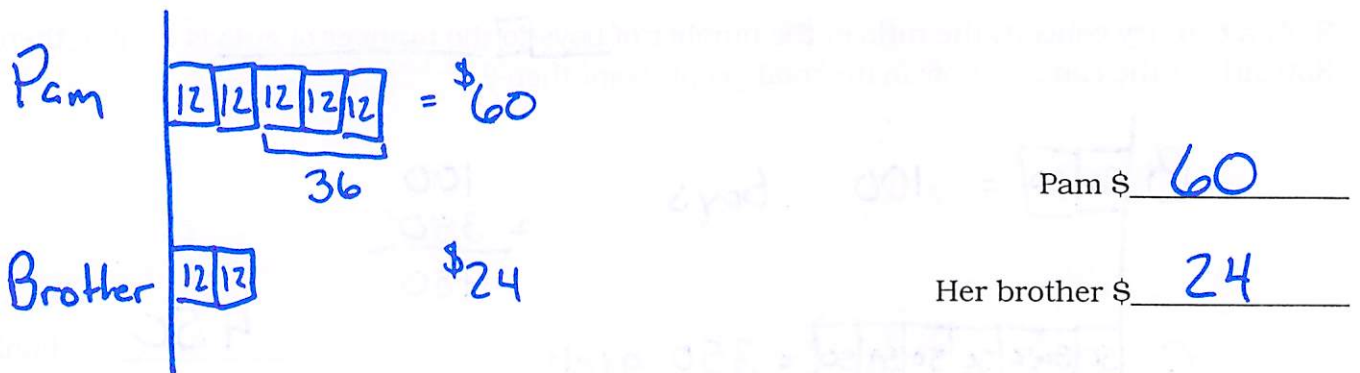
___70___ snowboarders

5. For a project in their health class, Jasmine and Brenda recorded the amount of milk they drank every day. The ratio of amount Jasmine drank to the amount Brenda drank was 3 : 2. If Jasmine drank 12 pints of milk, how much more milk did she drink than Brenda?

J | 4 4 4   12 pints

B | 4 4   8 pints

_____4_____ pints more than Brenda

6. Heritage Middle School has 150 students. If two out of every three students prefer math over ELA how many more students prefer math than ELA?

math over
ELA 2 : 3 total

Math over
ELA | 50 50   100 prefer math

Total | 50 50 50 = 150

150
-100
_____
50 prefer ELA

_____50_____ students

7. For every five dollars that Pam saves in her account, her brother saves two dollars in his account. Today, Pam has 36 more dollars in her account than her brother. How much do they each have in their account?

Pam | 12 12 12 12 12 = $60
          36

Brother | 12 12 $24

Pam $ __60__

Her brother $ __24__

8. A survey found that 12 out of every 15 people in the United States prefer eating at a restaurant over cooking at home. If 400 people selected eating at a restaurant on the survey, how many people took the survey?

Restaurant   Home
12 : 3
REDUCE
4 : 1

R | 100 100 100 100 = 400

_____500_____ total people

H | 100   = 100