

Section 5.6

READING AND SELF-DISCOVERY QUESTION

5.6

1. Summarize the Mathematics Blueprint for Problem Solving.

1. Restate the problem in your own words
2. Identify what you need to do
3. Translate the word problem into a mathematical model
4. Solve the problem
5. Validate your solution as correct

IDENTIFY AND CORRECT THE ERRORS

5.6

In the second column, identify the error(s) you find in the following worked solution and describe the error made. Solve the problem correctly in the third column.

Problem	Describe Error	Correct Process
<p>Johanna bought 96 inches of ribbon for making bows. She used $4\frac{1}{2}$ inches per bow and made 15 total. How much ribbon does she have left?</p>	<p>The student failed to subtract the amount of ribbon already used (which was calculated correctly) from the amount that Johanna bought.</p>	<p>(original inches) – (inches used) = ribbon left</p> $96 - (4\frac{1}{2} \cdot 15) =$ $= 96 - \left(\frac{9}{2} \cdot \frac{15}{1}\right)$ $= 96 - \left(\frac{135}{2}\right) = \frac{192}{2} - \frac{135}{2}$ $= \frac{57}{2}$ $= 28\frac{1}{2} \text{ inches remaining}$
<p>Worked Solution (What is wrong here?)</p>		
$4\frac{1}{2} \cdot 15 =$ $= \frac{9}{2} \cdot \frac{15}{1} = \frac{135}{2}$ $= 67\frac{1}{2} \text{ inches}$		