

# Answer Key

Name \_\_\_\_\_

Date \_\_\_\_\_

Class \_\_\_\_\_

Mailbox # \_\_\_\_\_

## Module 2: Mid Unit Study Guide

Complete the Chart (6 pts \_\_\_\_/6)

	Words	Expression	Value of the Expression
1.	40 times the sum of 34 and 42	$40 \times (34 + 42)$	3,040
2.	8 times the difference between 49 and 12	$8 \times (49 - 12)$	296
3.	13 times the sum of <del>3</del> 342 and 128	$13 \times (342 + 128)$	6,110

4. Draw the area model, and then solve using the partial product (16 pts \_\_\_\_/16)

a.  $26 \times 37 = \underline{962}$  (8 pts)

Area Model	Algorithm or Partial Product Algorithm
	<p>Algorithm or Partial Product Algorithm</p> <ul style="list-style-type: none"> <li>Use <u>arrows</u> to show where each partial product in your algorithm matches your model:</li> </ul> $  \begin{array}{r}  26 \\  \times 37 \\  \hline  182 \\  + 780 \\  \hline  962  \end{array}  $ <p style="text-align: right;">(7 x 26) (30 x 20)</p>

b.  $5.32 \times 36 =$  \_\_\_\_\_ (8 pts)

Area Model	Algorithm or Partial Product Algorithm • Use <u>arrows</u> to show where each partial product in your algorithm matches your model:
<p>30 + 6</p> <p>150 ones    90 tenths    60</p> <p>30 ones    18 tenths    12 hundredths</p> <p>180 ones + 108 tenths + 72 hundredths</p>	<p>5.32 hundredths</p> <p><math>\times 36</math></p> <p><u>3192</u> (6 x 5.32)</p> <p><u>15960</u> (30 x 5.32)</p> <p>19152 hundredths</p> <p>↓</p> <p>191.52</p>

5. Multiply using the standard algorithm. Show your work below each problem. Write the product on the blank. (14 pts \_\_\_\_\_/14)

a. 72 (3 pts)

$$\begin{array}{r} 72 \\ \times 43 \\ \hline 216 \\ 2880 \\ \hline 3096 \end{array}$$

b. 623 (3 pts)

$$\begin{array}{r} 623 \\ \times 45 \\ \hline 3115 \\ 24920 \\ \hline 28035 \end{array}$$

c. <sup>2</sup>5.4 ~~hundreds~~ tenths (3 pts)

$$\begin{array}{r} \times \quad 27 \\ \hline 378 \\ 1080 \\ \hline 1458 \end{array}$$

145.8 tenths

↓

145.8

Explain how you know your decimal decimal placement is correct. (1 pt)

I know the decimal must be placed between the <sup>5</sup>ones and <sup>8</sup>tenths, because  $5 \times 30 = 150$  and 145.8 is close to 150.

d. <sup>2</sup>~~2~~<sup>1</sup> hundredths 16.53 (3 pts)

$$\begin{array}{r} \times \quad 24 \\ \hline 6612 \\ 33060 \\ \hline 39672 \end{array}$$

↓

396.72

Explain how you know your decimal placement is correct. (1 pt)

I know the decimal is between the <sup>6</sup>ones and <sup>7</sup>tenths because  $16 \times 20 = 320$  and  $17 \times 20 = 340$  and that is close to 396.72.

6. At the post office, they ordered 64 packs of paper for \$5.70 each. How much did the post office spend? Explain your thinking in clear and concise language with sophisticated math vocabulary. (4 pts \_\_\_/4)

$$\begin{array}{r} \times \quad 64 \\ \hline 2280 \\ 34200 \\ \hline 36480 \end{array}$$

\$364.80 on packs of paper