

Answer Key

Name _____

1. Rachel set up a display placing 126 painted rocks in each of 3 rows. How many rocks are in Rachel's display? Choose numbers from the box to complete and solve the equation.

$$\begin{array}{r} 126 \\ \times 3 \\ \hline 18 \\ 60 \\ + 300 \\ \hline 378 \end{array}$$

18	30
60	180
600	300
378	387

2. Alberto rode the train 198 miles round trip 4 times last month. Use compensation to find the total distance Alberto traveled. Explain.

198 x 4: 198 is close to 200, so multiply 4 x 200 and then subtract 4 x 2;
800 - 8 = 792
So, 4 x 198 = 792

3. Mr. Ortiz sells tortillas in bags of 25 and in bags of 50. If he sells 4 bags of 50, how many tortillas did Mr. Ortiz sell?

- (A) 8 tortillas
- (B) 20 tortillas
- (C) 200 tortillas
- (D) 2,000 tortillas

4. The Amnel family spends \$1,874 for rent each month. How much does the family spend in 3 months?

$$1,874 \times 3 = r$$

$$r = \$5,622$$

$$\begin{array}{r} 1,874 \\ \times 3 \\ \hline 210 \\ 2400 \\ \hline 3,000 \\ 5,622 \end{array}$$

5. A science class is growing some fruit and vegetable plants on a plot of land behind their school. Each section is laid out in rows.

Produce	Number of Rows
Strawberries	65
Peppers	18
Squash	11
Tomatoes	22

Part A

There are 9 strawberry plants planted in each row. Write and solve an equation to find how many strawberry plants were planted.

$$9 \times 65 = 585$$

585 strawberry plants

Part B

There are 9 pepper plants planted in each row. Draw an area model and show the partial products to find how many pepper plants are planted behind the school.

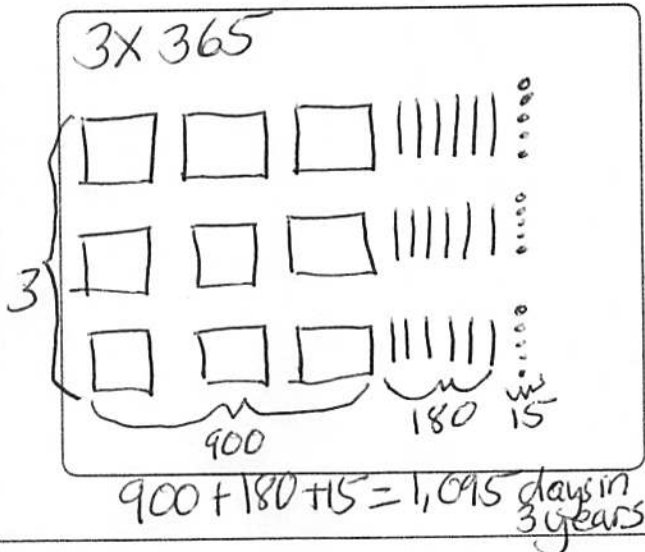
$$9 \begin{array}{|c|c|} \hline 10 & + 8 \\ \hline 9 \times 10 = 90 & 9 \times 8 = 72 \\ \hline \end{array}$$

$$90 + 72 = 162 \text{ pepper plants}$$

6. Select all the expressions that could be used to find the area of a field that is 1,235 yards long and 9 yards wide.

- $9 \times (1,000 + 200 + 20 + 5)$
 $9 \times (1,000 + 200 + 30 + 5)$
 $(9 \times 1,000) + (9 \times 200) + (9 \times 30) + (9 \times 5)$
 $9 \times 1,235$
 $1,235 + 9$

7. Draw an array to show and find the number of days in 3 years. Remember, there are 365 days in one year.



8. Tickets cost \$1,182 each. Find the cost for 3 tickets. Explain how you know your answer is reasonable.

$3 \times \$1,182 = \$3,546$

$\$1,182 \rightarrow \$1,000$	$\times 3$	$\$3,000$
$\times 3$		$\$3,546$

I estimate 1 ticket is about \$1,000, so 3 tickets are about \$3,000. \$3,546 is close to \$3,000, so my answer is reasonable.

9. The table shows the number of hot drinks sold in a busy coffee shop in 1 week.

Type	Number
Coffee	835
Latte	567
Mocha	200
Cappuccino	139

Part A

If the same number of cups of coffee were sold for 6 weeks in a row, how many cups would be sold in all?

$835 \times 6 = C$
 $C = 5,010$ cups of coffee

$\begin{array}{r} 835 \\ \times 6 \\ \hline 5010 \end{array}$

Part B

If the same number were sold each week, how many lattes and cappuccinos would be sold in 4 weeks? Explain.

$567 + 139 = 706$; $706 \times 4 = 2,824$
 2,824 lattes and caps sold in 4 weeks
 I took the # of lattes 567 and the # of cappuccinos 139 and added them together $567 + 139 = 706$. Then I multiplied the total 706 by 4 weeks. $706 \times 4 = 2,824$ lattes and caps.

Part C

The special drink of the month was an iced mocha. The shop sold 5 times as many iced mochas in one month as hot mochas. How many more iced mochas were sold than hot mochas in 4 weeks? Explain.

3,200 more iced mochas;
 I multiplied 200 mochas by 5 and my product was \$1,000;
 I subtracted $1,000 - 200 = 800$
 I multiplied $800 \times 4 = 3,200$ more iced mochas

10. Estimate to check if each product is reasonable. Choose numbers from the box to complete the equations. Then choose whether the product is reasonable.

200	300	800
900	2,400	2,700

$8 \times 296 = 2,368$

$8 \times \underline{300} = \underline{2,400}$

Reasonable Not Reasonable

$3 \times 932 = 2,796$

$3 \times \underline{900} = \underline{2,700}$

Reasonable Not Reasonable

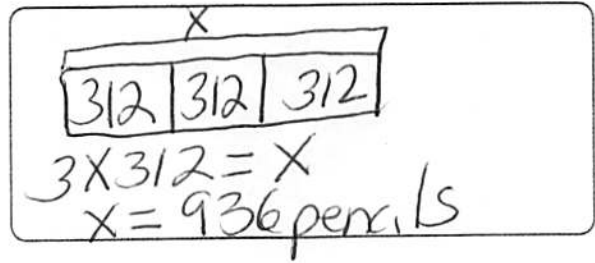
11. Which expression shows how to use breaking apart to find 5×617 ?

- (A) $(5 \times 6) + (5 \times 1) + (5 \times 7)$
- (B) $(5 \times 60) + (5 \times 10) + (5 \times 70)$
- (C) $(5 \times 600) + (5 \times 1) + (5 \times 7)$
- (D) $(5 \times 600) + (5 \times 10) + (5 \times 7)$

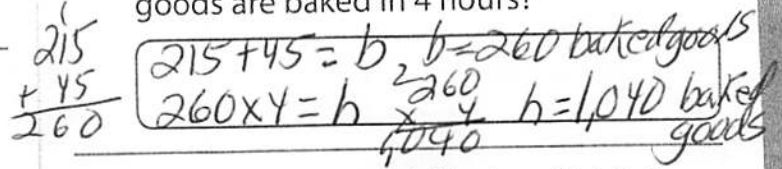
12. Ivan earned \$115 a month for working at the grocery store. Which are reasonable estimates for the amount of money Ivan would have if he saves all of the money he earns for 6 months?

- \$200
- \$600
- \$700
- \$1,200
- \$1,500

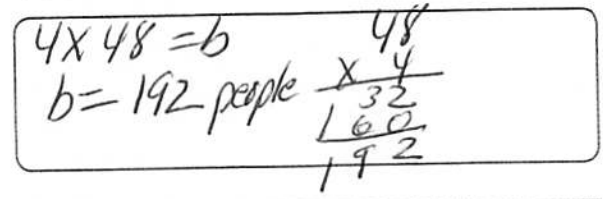
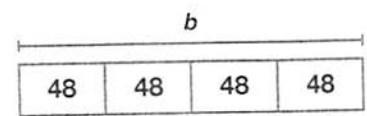
13. A store clerk set 3 boxes filled with 312 pencils each on a shelf. How many pencils were placed on the shelf? Draw a bar diagram to solve the problem.



14. Bea's Bakery bakes 215 cookies and 45 muffins every hour. How many baked goods are baked in 4 hours?



15. Four buses are available for a field trip. Each bus can hold 48 people. Write and solve an equation that can be used to find the number of people the buses can hold.



16. Mrs. Henderson bought 4 boxes of facial tissues. Each box has 174 tissues. Which is the best estimate for the total number of tissues Mrs. Henderson bought?

- (A) 200
- (B) 800
- (C) 1,200
- (D) 1,740

17. Mr. Luca would like to purchase a digital keyboard for each of his 3 nieces and 1 nephew. The keyboard costs \$415.

Part A

Mr. Luca thinks the total cost should be about \$1,200. Is this amount reasonable? Explain.

~~not reasonable~~
 3 nieces + 1 nephew = 4
 so, $4 \times \$415$ is about $4 \times \$400$ or \$1,600. Since the actual cost for a keyboard is greater than \$400 the actual cost will be greater than \$1,600. \$1,200 is too low an estimate. \$1,200 is not a reasonable amount.

Part B

Write and solve an equation to find the total cost of the keyboards. Explain why your answer is reasonable.

$4 \times \$415 = K$ $K = \$1,660$
 $4 \times \$400 = \$1,600$
 \$1,600 is close to \$1,660, so my answer is reasonable

18. Draw lines to match the number of boxes with the total number of that item.

Supply	Number per Box
Paper Clips	100
Small Erasers	300
Push Pins	500
Staples	3,000

5 boxes of Push Pins	21,000
9 boxes of Paper Clips	2,500
4 boxes of Small Erasers	900
7 boxes of Staples	1,200

19. Keira is on a rowing team. She practices by rowing 295 miles every month. Use mental math to find how many miles Keira rows in 6 months. Explain.

$6 \times 295 = 1,770$ miles
 Compensation: (strategy)
 295 is close to 300, so Keira can mult. ply $6 \times 300 = 1,800$. Now you need to adjust the product by subtracting (6×5) from 1,800.
 $1,800 - 30 = 1,770$ miles

20. Select all the partial products for 8×32

- 8
- 80
- 160
- 1,600
- 2,400