1. There are 4 flower beds in Max’s yard. Three rosebushes grow in each flower bed. How many rosebushes are there? Draw circles to model the problem and explain how to solve it.

Possible explanation: students might count the number of circles, or add $3 + 3 + 3$, or multiply $4 \times 3$. 12 rosebushes

2. Write a multiplication sentence for the array.

3. Cecile went fishing for three days at a lake. The first jump on the number line shows how many fish she caught the first day. She caught the same number of fish the next two days.

Write the multiplication sentence that the number line shows.

4. Ben drew an array to show the number of video games he has. Write a multiplication sentence for the array.

Julissa makes 4 bracelets. She uses 9 charms on each bracelet.

For numbers 5a–5d, tell if the number sentence could be used to find the number of charms Julissa uses.

5a. $4 + 9 = n$ Yes No

5b. $3 + 3 + 3 + 3 = n$ Yes No

5c. $9 + 9 + 9 + 9 = n$ Yes No

5d. $4 \times 9 = n$ Yes No

6. Edith sorts buttons into 4 groups for her art project. Each group contains 6 buttons. How many buttons does Edith sort? Make a bar model to solve the problem.

7. Select the number sentences that show the Commutative Property of Multiplication. Mark all that apply.

A. $5 \times 2 = 10$ Yes No

B. $6 \times 0 = 0$ Yes No

C. $7 \times 5 = 35$ Yes No

D. $6 \times 1 = 6$ Yes No

E. $9 \times 1 = 9$ Yes No

The Chapter Test is a summative assessment to assess students’ progress in Chapter 3. It is presented in Common Core Assessment formats in the Chapter Resources. The Personal Math Trainer can be used to review skills based on the results of the Chapter Test.
Name ____________________________

Chapter 3 Test

Page 3

9. Keisha needs 3 equal lengths of rope for a Field Day activity. The jump on the number line shows the length of one rope in yards. How many yards of rope does Keisha need?

\[ \text{Length of one rope in yards: } \frac{15}{8} = 1 \frac{7}{8} \text{ yards} \]

10. Anna’s mom makes 3 sandwiches every school day. Each sandwich gets 3 slices of cheese. How many slices of cheese did Anna’s mom need for all 3 sandwiches she makes on 2 school days?

\[ \text{Total slices of cheese: } 3 \times 3 \times 2 = 18 \text{ slices} \]

11. Angelo stacked 30 cans of soup collected during a food drive.

\[ \text{Cans of soup: } 30 \]

12. Choose the number that makes the sentence true.

\[ \text{The product of any number and 0 is zero.} \]

13. Ellen made this array to show that \(2 \times 9 = 18\).

Part A

Ellen says that \(9 \times 2 = 18\). Is Ellen correct? Draw an array to explain your answer.

Yes, Ellen is correct.

Part B

Which number property supports your answer? Explain.

Commutative Property of Multiplication; Possible explanation:

the arrays show that \(2 \times 9 = 18\) and \(9 \times 2 = 18\), so Ellen is correct.

14. Abdul has a collection of stamps. He puts the stamps in 3 equal groups. There are 7 stamps in each group. How many stamps does Abdul have? Use the number line to show your work.

\[ \text{Total stamps: } 3 \times 7 = 21 \]

15. Hudson and Asher each collect comic books.

Part A

Hudson sorts his comic books into 3 piles. Each group has 7 comic books. How many comic books does he have?

\[ \text{Total comic books: } 3 \times 7 = 21 \text{ comic books} \]

Part B

Asher sorts his comic books into 4 piles. Each pile has 2 comic books in it. Write a multiplication sentence to show how many comic books Asher has.

\[ \text{Total comic books: } 4 \times 2 = 8 \text{ comic books} \]

16. Aden sees 4 lifeguard towers at the beach. Each tower has 1 lifeguard. Write a multiplication sentence to show the number of lifeguards Aden sees.

\[ \text{Total lifeguards: } 4 \times 1 = 4 \]

17. Jorge spends 7 minutes completing each of 4 puzzles. He can use \(7 \times 4\) to find the total amount of time he spends on the puzzles.

For numbers 17a-17d, choose Yes or No to show which expressions are equal to \(7 \times 4\).

17a. \(7 + 4\)  
17b. \(7 + 7 + 7 + 7\)  
17c. \(4 + 4 + 4 + 4\)  
17d. \(7 + 7 + 7 + 7 + 7 + 7\)

Yes Yes Yes Yes No

Part A

Write the total number of strawberries and bananas he uses. Write a multiplication sentence for each.

\[ \text{Total bananas: } 3 \times 4 = 12 \text{ bananas} \]

Part B

After making 6 smoothies, Javier has 9 strawberries and 4 bananas left. What is the greatest number of smoothies he can make with those ingredients? Draw models and use them to explain.

Check students’ drawings. Possible explanation: he can make 4 smoothies with 1 banana each, but only 2 smoothies with 4 strawberries each, so the greatest number of smoothies he can make is 2. There will be 2 bananas and 1 strawberry left.

At most, he can make 2 more smoothies.