Sample of MCP mathematics Level F (grade 6)
Traditional mastery method with chapter reviews sample only

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Name _____

Basic Facts

CHAPTER 1

Lesson 1-1

Addition Facts and Properties

It's Algebra!

The Cubs won the Little League District Championship. How many games did they play?

	Won	Lost
Cubs	9	6
Pirates	8	7
Cards	5	9
Giants	6	8

We want to know how many games the Cubs played.

We know the Cubs won ____ games and lost ____ games.

To find the total games played, we add the games won and the games lost. We add ____ and ____.

____ + ____ = ____

addends sum

The Cubs played ____ games in all.

Understanding the basic properties of addition makes it easier to find sums.

Commutative Property
Two numbers can be added in any order without affecting the sum. Addends can be grouped in any order without affecting the sum.

Associative Property
Addends can be grouped in any order without affecting the sum.

Identity Property
When zero is one of two addends, the sum is the other addend.

Getting Started

Find each sum.

1. $6 + 4 =$ ____
2. $8 + 8 =$ ____
3. $9 + 0 =$ ____
4. $7 + 1 =$ ____

Add. Check by adding in the reverse order.

5. $\begin{array}{r} 3 \\ +\,8 \\ \hline \end{array}$
6. $\begin{array}{r} 5 \\ +\,4 \\ \hline \end{array}$
7. $\begin{array}{r} 9 \\ +\,2 \\ \hline \end{array}$
8. $\begin{array}{r} 7 \\ 1 \\ +\,8 \\ \hline \end{array}$
9. $\begin{array}{r} 3 \\ 6 \\ +\,5 \\ \hline \end{array}$
10. $\begin{array}{r} 7 \\ 8 \\ +\,0 \\ \hline \end{array}$

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Practice

Find each sum.

1. $4 + 4 =$ ____
2. $7 + 5 =$ ____
3. $3 + 7 =$ ____
4. $9 + 3 =$ ____
5. $2 + 8 =$ ____
6. $8 + 6 =$ ____
7. $7 + 6 =$ ____
8. $0 + 5 =$ ____
9. $6 + 3 =$ ____
10. $8 + 2 =$ ____
11. $8 + 9 =$ ____
12. $3 + 6 =$ ____
13. $9 + 7 =$ ____
14. $3 + 2 =$ ____
15. $9 + 4 =$ ____
16. $7 + 7 =$ ____
17. $1 + 7 =$ ____
18. $4 + 8 =$ ____
19. $5 + 6 =$ ____
20. $7 + 8 =$ ____

Add. Check by adding in the reverse order.

21. $9 + 5$
22. $6 + 6$
23. $0 + 0$
24. $7 + 4$
25. $8 + 6$
26. $5 + 2$
27. $4 + 3 + 2$
28. $1 + 6 + 8$
29. $6 + 3 + 5$
30. $8 + 1 + 3$
31. $5 + 0 + 8$
32. $5 + 2 + 5$
33. $0 + 9$
34. $5 + 1$
35. $2 + 4$
36. $8 + 3$
37. $4 + 6$
38. $8 + 8$

Problem Solving

Solve each problem.

39. Chris paid $6 to see a football game. He paid $2 to park his car. How much did he pay altogether?

40. Ellie scored 3 soccer goals in the first half and 2 soccer goals in the second half. How many goals did Ellie score?

41. In a football game, Walt scored a field goal for 3 points. Hal ran for a touchdown and kicked the extra point for 7 points altogether. How many points did both boys score?

42. Mickey ran 5 kilometers on Monday, 3 kilometers on Tuesday, and 8 kilometers on Friday. How far did he run during the week?

43. Annie earned $5 babysitting on Friday and $9 on Saturday. How much did she earn in all?

44. Ryan's ski class met for 2 hours before lunch and 1 hour after lunch. How many hours did he ski with his class?

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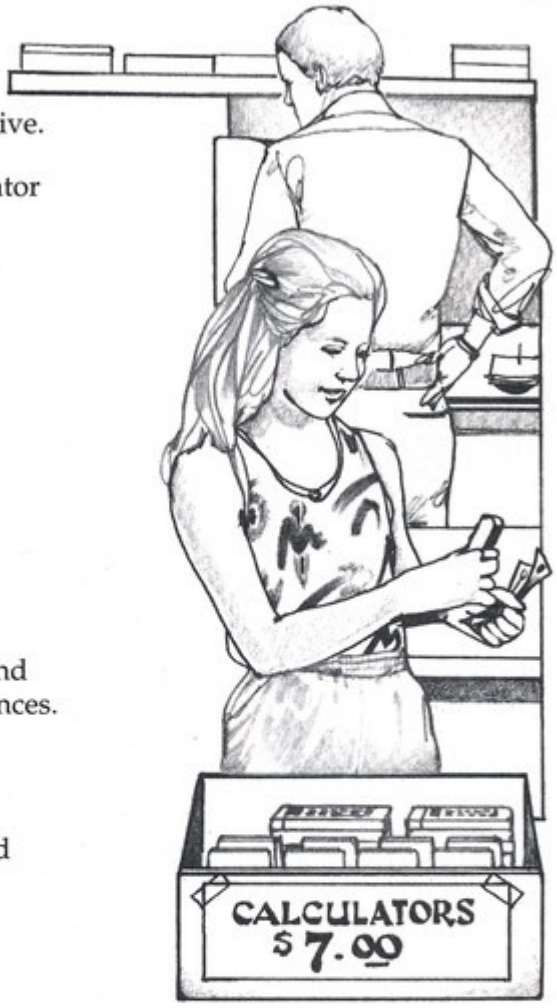
Name _____

Lesson 1-2

Subtraction Facts and Properties

It's Algebra!

Lynn is buying a new calculator. She pays for it with a ten-dollar bill. How much change will she receive?



We want to know how much change Lynn will receive.

We know she gives the clerk _____ and the calculator costs _____.

To find the difference, we subtract the cost of the calculator from the amount Lynn has. We subtract _____ from _____.

_____ − _____ = _____

minuend subtrahend difference

Lynn receives _____ in change.

Understanding the relationship between addition and subtraction makes it easier to find sums and differences.

Addition and subtraction check each other. They are called **inverse operations**.

Any three numbers can be used to write four related facts called a **fact family**.

$$\begin{array}{r} 6 \\ +\,7 \\ \hline \end{array} \qquad \begin{array}{r} 13 \\ -\,7 \\ \hline \end{array} \qquad \begin{array}{r} 13 \\ -\,6 \\ \hline \end{array} \qquad \begin{array}{r} 7 \\ +\,6 \\ \hline \end{array}$$

Using related facts helps you find missing numbers in equations.

$7 + ? = 10$ $\qquad$ $10 - 7 =$ _____

Getting Started

Find each difference.

1. $11 - 3 =$ _____
2. $16 - 8 =$ _____
3. $4 - 0 =$ _____
4. $7 - 7 =$ _____

Solve. Check by using the inverse operation.

5. $\begin{array}{r} 8 \\ -\,5 \\ \hline \end{array}$
6. $\begin{array}{r} 14 \\ -\,6 \\ \hline \end{array}$
7. $\begin{array}{r} 0 \\ -\,0 \\ \hline \end{array}$

Write the missing addend.

8. $6 +$ _____ $= 9$
9. $0 +$ _____ $= 6$

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Practice

Find each difference.

1. $9 - 6 =$ ____
2. $14 - 9 =$ ____
3. $9 - 5 =$ ____
4. $15 - 6 =$ ____
5. $7 - 2 =$ ____
6. $13 - 7 =$ ____
7. $17 - 9 =$ ____
8. $5 - 2 =$ ____
9. $10 - 9 =$ ____
10. $18 - 9 =$ ____
11. $3 - 3 =$ ____
12. $10 - 4 =$ ____
13. $7 - 0 =$ ____
14. $13 - 6 =$ ____
15. $15 - 7 =$ ____
16. $11 - 7 =$ ____

Solve. Check by using the inverse operation.

17. $\begin{array}{r} 6 \\ -\,4 \\ \hline \end{array}$
18. $\begin{array}{r} 11 \\ -\,7 \\ \hline \end{array}$
19. $\begin{array}{r} 14 \\ -\,7 \\ \hline \end{array}$
20. $\begin{array}{r} 9 \\ -\,3 \\ \hline \end{array}$
21. $\begin{array}{r} 8 \\ -\,0 \\ \hline \end{array}$
22. $\begin{array}{r} 12 \\ -\,3 \\ \hline \end{array}$
23. $\begin{array}{r} 8 \\ -\,1 \\ \hline \end{array}$
24. $\begin{array}{r} 14 \\ -\,5 \\ \hline \end{array}$
25. $\begin{array}{r} 6 \\ -\,0 \\ \hline \end{array}$
26. $\begin{array}{r} 12 \\ -\,5 \\ \hline \end{array}$
27. $\begin{array}{r} 10 \\ -\,8 \\ \hline \end{array}$
28. $\begin{array}{r} 5 \\ -\,2 \\ \hline \end{array}$
29. $\begin{array}{r} 8 \\ -\,3 \\ \hline \end{array}$
30. $\begin{array}{r} 16 \\ -\,7 \\ \hline \end{array}$
31. $\begin{array}{r} 14 \\ -\,8 \\ \hline \end{array}$
32. $\begin{array}{r} 12 \\ -\,6 \\ \hline \end{array}$
33. $\begin{array}{r} 18 \\ -\,9 \\ \hline \end{array}$
34. $\begin{array}{r} 13 \\ -\,8 \\ \hline \end{array}$

Write each missing addend.

35. ____ $+ 7 = 16$
36. ____ $+ 9 = 15$
37. $5 +$ ____ $= 12$
38. ____ $+ 9 = 16$
39. $8 +$ ____ $= 17$
40. $5 +$ ____ $= 13$
41. ____ $+ 0 = 4$
42. $7 +$ ____ $= 11$
43. ____ $+ 8 = 16$
44. $1 +$ ____ $= 7$
45. ____ $+ 2 = 11$
46. $2 +$ ____ $= 10$
47. $6 +$ ____ $= 9$
48. ____ $+ 8 = 15$
49. $3 +$ ____ $= 6$
50. ____ $+ 1 = 3$

Problem Solving

Solve each problem.

51. Alan bought one tape for $9. He bought a poster for $17. How much more did the poster cost?

52. Paula bought a belt for $8 and a pair of socks for $3. How much more did the belt cost?

53. Sandi had 16 records in her collection. She gave 7 records to her brother. How many records did Sandi have left?

54. Robert had 12 pictures to take. He took 3 pictures on Friday. How many pictures did Robert still have left to take?

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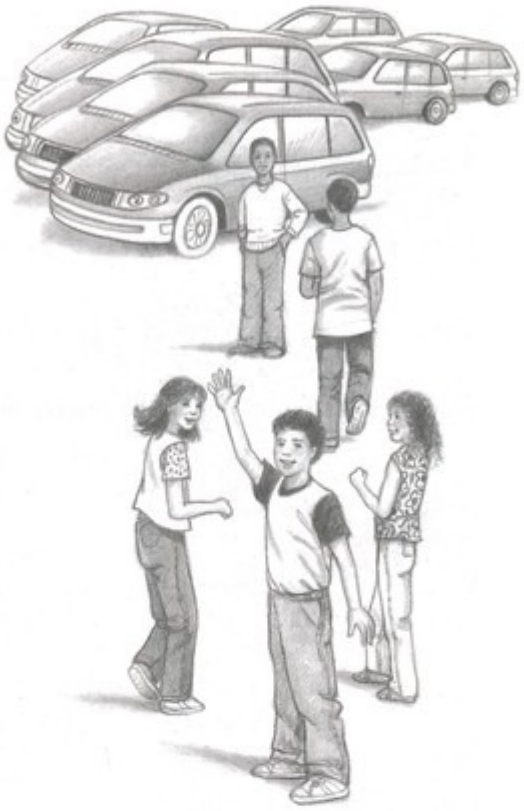
Lesson 1-3

Multiplication Facts and Properties

It's Algebra!

The sixth-grade class is going on a field trip to the Natural History Museum. Five students can ride in each car. How many students can go on the field trip?



We need to know how many students can go on the trip.

There are _____ cars and _____ students can go in each car.

To find the total number of students who can go on the trip, we multiply the number of students in each car by the number of cars. We multiply _____ times _____.

_____ × _____ = _____

factors product

_____ students can go on the field trip.

Understanding the basic properties of multiplication makes it easier to find products.

Commutative Property
Two numbers can be multiplied in any order.

$6 \times 8 =$ _____ $8 \times 6 =$ _____

Associative Property
Factors can be grouped in any way.

$(4 \times 2) \times 5 =$ _____ $4 \times (2 \times 5) =$ _____

Zero Property
When zero is one of the factors the product is zero.

$5 \times 0 =$ _____ $0 \times 5 =$ _____

Identity Property
When 1 is one of the two factors, the product is the other factor.

$7 \times 1 =$ _____ $1 \times 7 =$ _____

Getting Started

Find each product.

1. $7 \times 8 =$ _____
2. $9 \times 0 =$ _____
3. $1 \times 6 =$ _____
4. $5 \times (2 \times 3) =$ _____

Multiply. Check by multiplying in the reverse order.

5. $\begin{array}{r} 6 \\ \times\ 8 \\ \hline \end{array}$
6. $\begin{array}{r} 7 \\ \times\ 3 \\ \hline \end{array}$
7. $\begin{array}{r} 8 \\ \times\ 9 \\ \hline \end{array}$

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