GRADES K-2
MATHEMATICS

ANSWER KEY

Remote Learning Activities

Expect great things.
Pittsburgh Public Schools
Write Numbers to 10

10

Do the Math

5 7 8 9 10

Count and Write to 20

1. Check children's work.

20 twenty

Count and Match

1. Check children's work.

20 nineteen

18 twenty

20 twenty

19 eighteen

Directions:
1. Count and tell how many objects. Draw a line on each object as you count. Trace the numbers as you say them. 2-3. Count and tell how many objects there are. Touch each object as you count. Trace the number.
Count and Order to 20

Directions:
1. Count the dots in each set of ten frames. Trace the numbers. Then point to each number as you count in order from 11.
2. Write the number that comes after 15.

Count Marbles

Directions:
1. Count the marbles. Write the number of marbles in each set.
2. Write the numbers in order.

Count to 50 by Ones

Directions:
1. Check children's work.

Complete the Fifty Chart

Directions:
1. Count forward from 1. Draw a dot on each number as you count. Begin with 11 and count forward to 50. Color those numbers yellow.
2. Draw a red triangle around 10. Color the numbers above 10 red. Color the numbers below 10 red. Write the number that is greater than 20 and less than 22. Circle the number. Find the number that is greater than 20 and less than 21. Draw a line under the number.
Add and Subtract Within 20

You can use strategies to add or subtract.

- count on
- count back
- doubles
- related facts
- doubles plus one
- doubles minus one

What is 5 + 6?

I can use doubles plus one.

5 + 5 = 10

So, 5 + 6 = 11.

What is 12 - 4?

I can use a related fact.

8 + 4 = 12

So, 12 - 4 = 8.

Add or subtract.

1. 12 - 3 = 9
2. 8 + 9 = 17
3. 10 - 5 = 5
4. 13 - 7 = 6
5. 7 + 8 = 15
6. 6 + 6 = 12

Good Strategy!

Write any number from 3 to 9 in the box. Choose a strategy to help you find the sum or difference. Then write the strategy you used. Try to use each strategy.

Check children's work.

1. 11 - □ = □
   Strategy:

2. 6 + □ = □
   Strategy:

3. 8 + □ = □
   Strategy:

4. 12 - □ = □
   Strategy:

5. 9 - □ = □
   Strategy:

6. 7 + □ = □
   Strategy:

Writing and Reasoning: For Exercise 4, explain why you chose the strategy you used.

Possible answer: I used a related fact because counting back would take longer.

Add Tens

What is 10 + 30?

Use ▪ ▪ ▪ ▪.

1 ten + 3 tens = 4 tens

10 + 30 = 40

Use ▪ ▪ ▪ ▪.

Write how many tens. Write the sum.

1. 1 ten + 8 tens = 9 tens
   10 + 80 = 90

2. 4 tens + 3 tens = 7 tens
   40 + 30 = 70

3. 2 tens + 6 tens = 8 tens
   20 + 60 = 80

4. 5 tens + 3 tens = 8 tens
   50 + 30 = 80

Treasure Tens

Each □ stands for 10. Draw the missing □. Write the missing numbers. Then write a number sentence.

1. □ + □ = □
   □ + □ = □
   □ + □ = □

2. 5 tens + □ tens = 7 tens
   50 + □ = 70

3. □ tens + □ tens = 6 tens
   □0 + □ = 60

Writing and Reasoning: Each □ has 10. Tom has 10 □ and 1 □. How many □ does Tom have in all?

Tom has 20 dimes.
Subtract Tens

What is 60 - 40?

Use ✼✼✼✼. Draw to show tens. Write how many tens. Write the difference.

1. 7 tens - 4 tens = 3 tens
   70 - 40 = 30

2. 9 tens - 5 tens = 4 tens
   90 - 50 = 40

3. 5 tens - 2 tens = 3 tens
   50 - 20 = 30

4. 8 tens - 7 tens = 1 ten
   80 - 70 = 10

Different Difference

Solve. Cross out the subtraction in each row with the difference that does not match.

1. $80 - 30 = 50$  $60 - 20 = 40$  $70 - 20 = 50$

2. $70 - 50 = 20$  $30 - 20 = 10$  $80 - 70 = 10$

3. $90 - 30 = 60$  $70 - 10 = 60$  $50 - 20 = 30$

4. $60 - 40 = 20$  $90 - 80 = 10$  $50 - 40 = 10$

5. $40 - 20 = 20$  $60 - 30 = 30$  $20 - 0 = 20$

6. $90 - 20 = 70$  $70 - 10 = 60$  $80 - 10 = 70$

7. $80 - 40 = 40$  $60 - 20 = 40$  $50 - 30 = 30$

Writing and Reasoning: How could you change one number in Exercise 1 to make each difference match? Explain.

I could change 60 to 70: $70 - 20 = 50$; or
I could change 20 to 10: $60 - 10 = 50$.

Learn the Math

Dorius drew 16 pictures. Greg drew 28 pictures. How many fewer pictures did they draw in all?

Add.

\[
\begin{array}{c}
\text{Step 1:} \\
\text{Add the ones. Are there 10 ones to regroup?} \\
\text{Yes. No.} \\
\text{Step 2:} \\
\text{Regroup 14 ones is the same as 1 ten 4 ones.} \\
\text{Write the regrouped ten.} \\
\text{Write how many ones are in the ones place now.} \\
\text{Step 3:} \\
\text{Add the tens. Then write the tens.} \\
\end{array}
\]

So, they drew 44 pictures in all.

Do the Math

Regroup if you can. Write the sums.

1. 22
   - 18
   \[
   \begin{array}{c}
   \text{Can you make a ten? Yes.} \\
   \text{Regroup 10 ones as } 1 \text{ ten.} \\
   \text{Write the regrouped ten.} \\
   \text{Write how many ones are in the ones place now.} \\
   \text{Add the tens. Then write the tens.} \\
   \end{array}
   \]

2. \[
\begin{array}{c}
3 \quad 9 \\
- 3 \quad 8 \\
\hline
7 \quad 1 \\
\end{array}
\]

3. \[
\begin{array}{c}
1 \quad 8 \\
- 1 \quad 6 \\
\hline
5 \quad 2 \\
\end{array}
\]

4. \[
\begin{array}{c}
5 \quad 1 \\
- 1 \quad 9 \\
\hline
4 \quad 2 \\
\end{array}
\]

5. \[
\begin{array}{c}
24 \\
- 37 \\
\hline
- 13 \\
\end{array}
\]

6. \[
\begin{array}{c}
42 \\
- 58 \\
\hline
- 16 \\
\end{array}
\]

7. \[
\begin{array}{c}
57 \\
- 28 \\
\hline
29 \\
\end{array}
\]

8. Jose has 24 marbles. Sandra gives him 18 marbles. How many marbles does Jose have in all?
   \[42\] marbles
Dimes, Nickels, and Pennies

1. Count on to find the total value.
   
   10¢, 20¢, 30¢, 31¢
   
   total value

2. 10¢, 15¢, 20¢, 25¢
   
   total value

Find the Total Cost

Make a list of at least 3 items to put in each case. Draw coins needed to buy the items. Then write the total cost of the items in each case. Check children's work.

Case 1

<table>
<thead>
<tr>
<th>1¢ each</th>
<th>5¢ each</th>
<th>10¢ each</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

total cost

Case 2

<table>
<thead>
<tr>
<th>1¢ each</th>
<th>5¢ each</th>
<th>10¢ each</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

total cost

Writing and Reasoning Describe a set of 4 items above that costs more than 20¢. What is the total cost?

One possible answer: 2 erasers and 2 markers; The total cost is 30¢.

Quarters

Count by twenty-fives.

1 quarter 25¢

25¢, 50¢, 75¢

Total value


25¢, 50¢, 60¢, 61¢

61¢ total value

Count on to find the total value.

1.

25¢, 26¢, 27¢, 28¢

28¢ total value

2.

25¢, 50¢, 60¢, 70¢

70¢ total value

What Is the Missing Coin?

Draw and label the coins listed. Then draw the missing coin.

1. Jimmy has 2 quarters, 2 dimes, and another coin. He has 75¢ in all. What is the other coin?
   Drawings should include 2 quarters and 2 dimes.

2. Tisha has 2 pennies, 3 nickels, and another coin. She has 27¢ in all. What is the other coin?
   Drawings should include 2 pennies and 3 nickels.

3. Ed has 1 dime, 3 nickels, and another coin. He has 50¢ in all. What is the other coin?
   Drawings should include 1 dime and 3 nickels.

Writing and Reasoning How did you find the missing coin in Exercise 3?

Possible answer: I subtracted the total value of the listed coins from 50¢. 50¢ − 25¢ = 25¢.

The missing coin is a quarter.
Arrange and Count Coins
Sort the coins by drawing them in the correct places in the chart below. Write the total value for each group of coins.

<table>
<thead>
<tr>
<th>QUARTER</th>
<th>DIME</th>
<th>NICKEL</th>
<th>PENNY</th>
</tr>
</thead>
<tbody>
<tr>
<td>25¢</td>
<td>0¢</td>
<td>0¢</td>
<td>(C)</td>
</tr>
<tr>
<td>25¢</td>
<td>0¢</td>
<td>0¢</td>
<td>(C)</td>
</tr>
<tr>
<td>0¢</td>
<td>0¢</td>
<td>5¢</td>
<td>(C)</td>
</tr>
<tr>
<td>0¢</td>
<td>0¢</td>
<td>5¢</td>
<td>(C)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5¢</td>
<td>(C)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5¢</td>
<td>(C)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5¢</td>
<td>(C)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5¢</td>
<td>(C)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(C)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(C)</td>
<td>(C)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(C)</td>
<td>(C)</td>
</tr>
</tbody>
</table>

**Writing and Reasoning**: Does a group with a greater number of coins always have a greater value? Explain.

**No.** Possible explanation: The 6 pennies are worth less than the 3 quarters.