1. Complete each pattern by counting by the first number given, then by the following numbers given.

   a) \[ \begin{array}{ccc}
       10 & 20 & 30 \\
       \text{Count by 10s} & & \\
     \end{array} \quad \begin{array}{ccc}
       35 & 40 & 41 \\
       \text{Count by 5s} & \text{Count by 1s} & \\
     \end{array} \quad \begin{array}{ccc}
       \quad & \quad & \\
       \text{Count by 25s} & \text{Count by 5s} & \text{Count by 1s} \\
     \end{array} \quad \begin{array}{ccc}
       \quad & \quad & \\
       \text{Count by 25s} & \text{Count by 10s} & \text{Count by 5s} \\
     \end{array} \quad \begin{array}{ccc}
       \quad & \quad & \quad \\
       \text{Count by 25s} & \text{Count by 10s} & \text{Count by 5s} \\
     \end{array} \quad \begin{array}{ccc}
       \quad & \quad & \quad \\
       \text{Count by 25s} & \text{Count by 10s} & \text{Count by 5s} \\
     \end{array} \quad \begin{array}{ccc}
       \quad & \quad & \quad \\
       \text{Count by 25s} & \text{Count by 10s} & \text{Count by 5s} \\
     \end{array} \quad \begin{array}{ccc}
       \quad & \quad & \quad \\
       \text{Count by 25s} & \text{Count by 10s} & \text{Count by 5s} \\
     \end{array} \quad \begin{array}{ccc}
       \quad & \quad & \quad \\
       \text{Count by 25s} & \text{Count by 10s} & \text{Count by 5s} \\
     \end{array} \]

   b) \[ \begin{array}{ccc}
       \quad & \quad & \quad \\
       \text{Count by 25s} & \text{Count by 5s} & \text{Count by 1s} \\
     \end{array} \]

   c) \[ \begin{array}{ccc}
       \quad & \quad & \quad \\
       \text{Count by 25s} & \text{Count by 10s} & \text{Count by 5s} \\
     \end{array} \]

   d) \[ \begin{array}{ccc}
       \quad & \quad & \quad \\
       \text{Count by 25s} & \text{Count by 10s} & \text{Count by 5s} \\
     \end{array} \]

   e) \[ \begin{array}{ccc}
       \quad & \quad & \quad \\
       \text{Count by 25s} & \text{Count by 10s} & \text{Count by 5s} \\
     \end{array} \]

2. Write the total amount of money in cents for the number of coins given in the chart below.
   **HINT**: Count by the greater amount first.

   a) \[ \begin{array}{cc}
       \text{Nickels} & \text{Pennies} \\
       6 & 7 \\
     \end{array} \]
   \[ \text{Total amount} = \]

   b) \[ \begin{array}{cc}
       \text{Quarters} & \text{Dimes} \\
       3 & 2 \\
     \end{array} \]
   \[ \text{Total amount} = \]

   c) \[ \begin{array}{cc}
       \text{Quarters} & \text{Nickels} \\
       5 & 5 \\
     \end{array} \]
   \[ \text{Total amount} = \]

   d) \[ \begin{array}{ccc}
       \text{Quarters} & \text{Nickels} & \text{Pennies} \\
       4 & 2 & 4 \\
     \end{array} \]
   \[ \text{Total amount} = \]

   e) \[ \begin{array}{ccc}
       \text{Quarters} & \text{Nickels} & \text{Pennies} \\
       6 & 3 & 7 \\
     \end{array} \]
   \[ \text{Total amount} = \]

   f) \[ \begin{array}{cccc}
       \text{Quarters} & \text{Dimes} & \text{Nickels} & \text{Pennies} \\
       2 & 3 & 1 & 5 \\
     \end{array} \]
   \[ \text{Total amount} = \]

   g) \[ \begin{array}{cccc}
       \text{Quarters} & \text{Dimes} & \text{Nickels} & \text{Pennies} \\
       5 & 2 & 2 & 2 \\
     \end{array} \]
   \[ \text{Total amount} = \]

3. Count the given coins and write the total amount in cents.
   **HINT**: Count by the greater amount first.

   a) \[ \begin{array}{cccc}
       25\,\text{¢} & 1\,\text{¢} & 1\,\text{¢} & 5\,\text{¢} & 5\,\text{¢} & 10\,\text{¢} & 1\,\text{¢} \\
     \end{array} \]
   \[ \text{Total amount} = \]

   b) \[ \begin{array}{cccc}
       10\,\text{¢} & 1\,\text{¢} & 10\,\text{¢} & 25\,\text{¢} & 25\,\text{¢} & 1\,\text{¢} & 25\,\text{¢} \\
     \end{array} \]
   \[ \text{Total amount} = \]

   c) \[ \begin{array}{cccc}
       10\,\text{¢} & 1\,\text{¢} & 25\,\text{¢} & 5\,\text{¢} & 10\,\text{¢} & 25\,\text{¢} & 10\,\text{¢} \\
     \end{array} \]
   \[ \text{Total amount} = \]

   d) \[ \begin{array}{cccc}
       5\,\text{¢} & 10\,\text{¢} & 25\,\text{¢} & 5\,\text{¢} & 1\,\text{¢} & 5\,\text{¢} & 25\,\text{¢} \\
     \end{array} \]
   \[ \text{Total amount} = \]

   **BONUS**
   e) \[ \begin{array}{cccc}
       5\,\text{¢} & 1\,\text{¢} & 5\,\text{¢} & 1\,\text{¢} & 1\,\text{¢} & 5\,\text{¢} & 25\,\text{¢} & 5\,\text{¢} & 1\,\text{¢} & 10\,\text{¢} & 10\,\text{¢} & 25\,\text{¢} & 25\,\text{¢} \\
     \end{array} \]
   \[ \text{Total amount} = \]
1. Draw in the number of additional coins needed to make each total.

<table>
<thead>
<tr>
<th>a)</th>
<th>10¢</th>
<th>10¢</th>
<th>How many dimes?</th>
<th>b)</th>
<th>25¢</th>
<th>5¢</th>
<th>How many quarters?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>= 40¢</td>
<td></td>
<td></td>
<td></td>
<td>= 80¢</td>
</tr>
<tr>
<td>c)</td>
<td>25¢</td>
<td>25¢</td>
<td>How many dimes?</td>
<td>d)</td>
<td>25¢</td>
<td>5¢</td>
<td>How many quarters?</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>= 80¢</td>
<td></td>
<td></td>
<td></td>
<td>= 55¢</td>
</tr>
</tbody>
</table>

2. Draw the additional coins needed to make each total. Must use two extra coins for each question.

<table>
<thead>
<tr>
<th>a)</th>
<th>16¢</th>
<th>10¢</th>
</tr>
</thead>
<tbody>
<tr>
<td>b)</td>
<td>60¢</td>
<td>25¢</td>
</tr>
<tr>
<td>c)</td>
<td>50¢</td>
<td>25¢</td>
</tr>
<tr>
<td>d)</td>
<td>80¢</td>
<td>25¢</td>
</tr>
<tr>
<td>e)</td>
<td>41¢</td>
<td>10¢</td>
</tr>
<tr>
<td>f)</td>
<td>65¢</td>
<td>25¢</td>
</tr>
<tr>
<td>g)</td>
<td>95¢</td>
<td>25¢</td>
</tr>
<tr>
<td>h)</td>
<td>90¢</td>
<td>25¢</td>
</tr>
<tr>
<td>i)</td>
<td>$4</td>
<td>$2</td>
</tr>
<tr>
<td>j)</td>
<td>$7</td>
<td>$2</td>
</tr>
<tr>
<td>k)</td>
<td>$5</td>
<td>$1</td>
</tr>
<tr>
<td>l)</td>
<td>$8</td>
<td>$2</td>
</tr>
<tr>
<td>m)</td>
<td>136¢</td>
<td>$1</td>
</tr>
<tr>
<td>n)</td>
<td>331¢</td>
<td>$2</td>
</tr>
</tbody>
</table>

3. Draw a picture to show the extra coins each child will need to pay for the item they want.

   a) Ron has 35¢. He wants to buy an eraser for 65¢.
   b) Alan has 3 quarters, a dime, and a nickel. He wants to buy a sandwich for 98¢.
   c) Jane has 3 toonies and a loonie. She wants to buy a skirt for ten dollars.
   d) Raiz has 4 toonies and 2 loonies. He wants to buy a book for eleven dollars and sixty-five cents.

4. Lyubava makes $4.00 using 10 coins. Find 2 possible sets of coins she could have used.

5. Make up a problem like one of the problems in Question 3 and exchange it with a classmate to solve.
1. What is the greatest amount you could pay in quarters without exceeding the amount? Draw the quarters to show your answer.

<table>
<thead>
<tr>
<th>Amount</th>
<th>Greatest amount you could pay in quarters:</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) 55¢</td>
<td></td>
</tr>
<tr>
<td>c) 89¢</td>
<td></td>
</tr>
<tr>
<td>e) 43¢</td>
<td></td>
</tr>
<tr>
<td>g) 39¢</td>
<td></td>
</tr>
<tr>
<td>i) 83¢</td>
<td></td>
</tr>
<tr>
<td>b) 56¢</td>
<td></td>
</tr>
<tr>
<td>d) 77¢</td>
<td></td>
</tr>
<tr>
<td>f) 65¢</td>
<td></td>
</tr>
<tr>
<td>h) 24¢</td>
<td></td>
</tr>
<tr>
<td>j) 96¢</td>
<td></td>
</tr>
</tbody>
</table>

2. Find the greatest amount you could pay in quarters. Represent the amount remaining using the least number of coins.

<table>
<thead>
<tr>
<th>Amount</th>
<th>Amount Paid in Quarters</th>
<th>Amount Remaining</th>
<th>Amount Remaining in Coins</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) 84¢</td>
<td>75¢</td>
<td>9¢</td>
<td>5¢ 1¢ 1¢ 1¢ 1¢</td>
</tr>
<tr>
<td>b) 67¢</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) 86¢</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) 91¢</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Trade coins to make each amount with the least amount of coins. Draw a picture to show your answer.

a) 

b) 

c) 

d) 

e) 

f) 

4. Show how you could trade the amounts for the least number of coins.

a) 7 quarters
b) 5 dimes and 3 nickels
c) 8 loonies
d) 9 loonies and 6 dimes
e) 8 loonies, 6 dimes, 3 nickels and 5 pennies
5. Find the number of coins you need to make the amount in the right-hand column of the chart.
HINT: Count up by quarters until you are as close to the amount as possible. Then count on by dimes, and so on.

<table>
<thead>
<tr>
<th>Number of Quarters</th>
<th>Subtotal</th>
<th>Number of Dimes</th>
<th>Subtotal</th>
<th>Number of Nickels</th>
<th>Subtotal</th>
<th>Number of Pennies</th>
<th>Total Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>3</td>
<td>75¢</td>
<td>0</td>
<td>75¢</td>
<td>1</td>
<td>80¢</td>
<td>3</td>
</tr>
<tr>
<td>b)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. Write the greatest amount you could pay in $20 bills, without exceeding the amount.
   a) $45 = $40   b) $33 = _____   c) $25 = _____   d) $51 = _____   e) $67 = _____

7. Write the number (#) of each type of bill or coin you would need to get the amounts given.

<table>
<thead>
<tr>
<th>#</th>
<th>Type</th>
<th>#</th>
<th>Type</th>
<th>#</th>
<th>Type</th>
<th>#</th>
<th>Type</th>
<th>#</th>
<th>Type</th>
<th>#</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) $21.00</td>
<td>0</td>
<td>$50.00</td>
<td>1</td>
<td>$20.00</td>
<td>0</td>
<td>$10.00</td>
<td>0</td>
<td>$5.00</td>
<td>0</td>
<td>$2.00</td>
<td></td>
</tr>
<tr>
<td>b) $35.00</td>
<td>$50.00</td>
<td>$20.00</td>
<td>$10.00</td>
<td>$5.00</td>
<td>$2.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) $52.00</td>
<td>$50.00</td>
<td>$20.00</td>
<td>$10.00</td>
<td>$5.00</td>
<td>$2.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) $88.00</td>
<td>$50.00</td>
<td>$20.00</td>
<td>$10.00</td>
<td>$5.00</td>
<td>$2.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e) $66.00</td>
<td>$50.00</td>
<td>$20.00</td>
<td>$10.00</td>
<td>$5.00</td>
<td>$2.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. In your notebook, draw the least number of coins you need to make the following amounts.
   a) 75¢   b) 46¢   c) 81¢   d) 96¢

9. Draw the least number of coins and bills you would need to make the following amounts.
   a) $55.00   b) $68.00   c) $72.00   d) $125.00
   e) $62.35   f) $43.13   g) $57.81   h) $71.12
   i) $63.06   j) $158.50   k) $92.83   l) $35.23
1. Write the given amount in dollars, dimes and pennies, then in dollar notation.

<table>
<thead>
<tr>
<th>Amount in ¢</th>
<th>Dollars</th>
<th>Dimes</th>
<th>Pennies</th>
<th>Amount in $</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) 173¢</td>
<td>1</td>
<td>7</td>
<td>3</td>
<td>$1.73</td>
</tr>
<tr>
<td>c) 37¢</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Amount in ¢</th>
<th>Dollars</th>
<th>Dimes</th>
<th>Pennies</th>
<th>Amount in $</th>
</tr>
</thead>
<tbody>
<tr>
<td>b) 372¢</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) 8¢</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Change the amount to cent notation, then dollar notation.

a) 7 pennies = 7¢ = $0.07
b) 6 nickels = 60¢ = ___
c) 9 dimes = 90¢ = ___
d) 3 pennies = 3¢ = ___
e) 11 pennies = 11¢ = ___
f) 1 quarter = 25¢ = ___
g) 4 nickels = 20¢ = ___
h) 7 quarters = 70¢ = ___
i) 8 dimes = 80¢ = ___
j) 5 toonies = 500¢ = ___
k) 8 loonies = 800¢ = ___
l) 2 loonies = 200¢ = ___

3. Count the dollar amount and the cent amount. Write the total amount in dollar (decimal) notation.

<table>
<thead>
<tr>
<th>Dollar Amount</th>
<th>Cent Amount</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) $2 $1 $1</td>
<td>25¢ 25¢ 5¢</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) $20 $5</td>
<td>25¢ 10¢ 5¢</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) $10 $10</td>
<td>25¢ 25¢ 1¢</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Count the given coins. Write the total amount in cents and in dollars (decimals).

<table>
<thead>
<tr>
<th>Coins</th>
<th>Cent Notation</th>
<th>Dollar Notation</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>105¢</td>
<td>$1.05</td>
</tr>
<tr>
<td>b)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. Write each number of cents in dollar notation.

a) 437¢ = ___
b) 40¢ = ___
c) 5¢ = ___
d) 348¢ = ___
e) 306¢ = ___
5. Write each amount of money in cent notation.
   a) $2.39 = _____  b) $5.53 = _____  c) $6.41 = _____  d) $0.06 = _____

7. Circle the greater amount of money in each pair.
   a) 293¢ or $2.96  b) $1.05 or 107¢  c) 7¢ or $0.70
   d) $6.85 or 686¢  e) 640¢ or $6.04  f) $0.23 or 122¢

8. Circle the larger amount of money in each pair.
   a) seven dollars and fifty-five cents or seven dollars and seventy cents
   b) nine dollars and eighty-three cents or 978¢
   c) fifteen dollars and forty cents or $15.08

9. Tally the amount of each type of denomination then find the total.
   a) 
   
   Total:

   b) 
   
   Total:

   c) 
   
   Total:

10. Which is a greater amount of money: $427 or $4.32? Explain how you know.

11. Ken paid for an eraser with 5 coins. The eraser cost 85¢. Which coins did he use?

12. Myles bought a pack of cards for $4.50. He paid for it with 4 coins. Which coins did he use?

13. Tanya’s weekly allowance is $10.25. Her mom gave her 8 coins. Which coins did she use?

14. Write words for the following amounts.
   a) $4.85  b) $13.24  c) $8.25  d) $461.99  e) $385.99  f) $4,523.02