This test covers material taught in Dimensions Math 2B.

1. Add using mental math.

(a) \[36 + 40 = \]  
(b) \[85 + 6 = \]  
(c) \[50 + 375 = \]  
(d) \[97 + 205 = \]  
(e) \[32 + 199 = \]  
(f) \[298 + 76 = \]

2. Find the missing number.

(a) \[65 + \boxed{} = 100\]  
(b) \[29 + \boxed{} = 100\]  
(c) \[\boxed{} + 12 = 100\]  
(d) \[\boxed{} + 55 = 100\]

   (a) $68 - 40 = \underline{}$
   
   (b) $943 - 80 = \underline{}$
   
   (c) $800 - 70 = \underline{}$
   
   (d) $51 - 9 = \underline{}$
   
   (e) $200 - 97 = \underline{}$
   
   (f) $408 - 99 = \underline{}$

4. Find the value.

   (a) $3 \times 7 = \underline{}$
   
   (b) $9 \times 4 = \underline{}$
   
   (c) $7 \times \underline{} = 21$
   
   (d) $4 \times 8 = \underline{}$
   
   (e) $\underline{} \times 3 = 27$
   
   (f) $6 \times \underline{} = 24$
5 Divide.

(a) \(20 \div 4 =\) 

(b) \(18 \div 3 =\) 

(c) \(24 \div 3 =\) 

(d) \(28 \div 4 =\) 

(e) \(16 \div \) \(= 4\)

(f) \(12 \div \) \(= 6\)

6 A bag of rice weighs 5 kg.
How much do 8 bags of rice weigh?

8 bags of rice weigh _______ kg.
7 Dion put 24 flowers equally into 4 vases.  
How many flowers are in each vase?

There are _______ flowers in each vase.

8 A farmer has 27 lemons.  
She puts them into bags of three.  
How many bags of lemons are there?

There are _______ bags of lemons.

9 Kona wants to put 38 candles into boxes.  
Each box can hold 5 candles.  
How many boxes does she need?

She needs _______ boxes.
10 Add or subtract.

(a) $95\,\text{c} + \underline{\quad}\,\text{c} = 100\,\text{c}$
(b) $22\,\text{c} + \underline{\quad}\,\text{c} = \$1$
(c) $\$1 − 57\,\text{c} = \underline{\quad}\,\text{c}$
(d) $\$1 − 34\,\text{c} = \underline{\quad}\,\text{c}$

11 Write the amount of money.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fifty-four cents</td>
<td>$\underline{\quad}.\underline{\quad}$</td>
</tr>
<tr>
<td>Seven dollars and ten cents</td>
<td>$\underline{\quad}.\underline{\quad}$</td>
</tr>
<tr>
<td>Eight cents</td>
<td>$\underline{\quad}.\underline{\quad}$</td>
</tr>
<tr>
<td>Sixty-three dollars</td>
<td>$\underline{\quad}.\underline{\quad}$</td>
</tr>
</tbody>
</table>
12 Fill in the blanks.

(a) _______ dimes make $3.00.
(b) _______ quarters make $3.75.
(c) _______ pennies make $1.00.
(d) _______ nickels make 80¢.

13 Add or subtract.

(a) $2.55 + 25¢ = $\underline{\hspace{2cm}}$
(b) $0.95 + $1.95 = $\underline{\hspace{2cm}}$
(c) $6.75 + $1.40 = $\underline{\hspace{2cm}}$
(d) 55¢ − 20¢ = $\underline{\hspace{2cm}}$¢
(e) $7.89 − $5.80 = $\underline{\hspace{2cm}}$
(f) $3.10 − $0.90 = $\underline{\hspace{2cm}}$
Emma has 3 quarters, 3 dimes, and 3 nickels.
Alex has a dollar bill and two dimes.
Sofia has 5 dimes, 2 pennies, and 8 quarters.
Dion has a dollar bill, one nickel, and one penny.

(a) Who has the most money?

_______________ has the most money.

(b) Who have the same amount of money?

_______________ and ______________ have the same amount of money.

(c) Does Dion or Alex have less money?
   How much less?

_______________ has less money.
   He has ______________ less.
15 Alex has $6.00. 
He buys a burrito for $3.15 and a drink for 80¢. 
How much money does he have left?

16 What fraction of each shape is shaded?

(a) \[ \frac{16}{16} \]  
(b) \[ \frac{17}{17} \]  
(c) \[ \frac{24}{24} \text{ and } \frac{30}{30} \text{ make 1 whole.} \]

17 (a) \[ \frac{3}{4} \text{ and } \frac{7}{7} \text{ make 1 whole.} \]

(b) \[ \frac{2}{2} \text{ and } \frac{9}{9} \text{ make 1 whole.} \]

(c) \[ \frac{5}{5} \text{ fourths make 1 half.} \]
18 (a) There are ______ one-fifths in \( \frac{3}{5} \).

(b) There are ______ one-tenths in \( \frac{7}{10} \).

(c) There are ______ one-thirds in one whole.

(d) Write the fraction for five-twelfths.

19 Write the fractions in order, beginning with the smallest fraction:

\[
\frac{1}{3} \quad \frac{1}{9} \quad \frac{1}{4} \quad \frac{1}{8} \quad \frac{1}{2}
\]

20 Dion ate \( \frac{1}{7} \) of a cake. Mei ate \( \frac{1}{6} \) of the same cake.
Who ate more cake?

________________ ate more cake.
21 Fill in the blanks.

(a) What time is the clock showing?

____:____

(b) Write the time in words:

_____________________________________

(c) It is ______ minutes to 8.

(d) What time was it 6 hours ago? ______:_____

(e) Draw the minute hand to show what time it will be in 50 minutes.
22  A show started at 9:15 a.m. and lasted 45 min.
What time did the show end?

23  A plane left Seattle and arrived in Portland at 12:40 p.m.
The flight took 55 minutes.
What time did the plane leave Seattle?

24  Circle True or False.

(a) 1 liter of water can fill about 40 water glasses. True False
(b) A water jug can hold about 2 L of water. True False
(c) The capacity of a bath tub is about 20 L. True False
(d) A fish tank has a greater capacity than a teacup. True False
This picture graph shows the number of birthday cakes sold by a bakery this week.

<table>
<thead>
<tr>
<th>Birthday Cakes Sold This Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
</tr>
<tr>
<td><img src="image" alt="Birthday Cakes graph" /></td>
</tr>
</tbody>
</table>

Each ⬜ stands for 5 cakes.

(a) How many cakes were sold on Tuesday?

(b) On which 2 days were the same number of cakes sold?

(c) On which day were the most cakes sold?

(d) How many more cakes did the bakery sell on Friday than on Monday?

(e) How many cakes were sold in the five days?
26 Circle True or False.

(a) Triangles are polygons with 3 sides.  
True  False

(b) Rectangles are polygons with 4 sides.  
True  False

(c) Hexagons have 5 sides.  
True  False

(d) Rectangles are quadrilaterals.  
True  False

(e) There are 4 semicircles in a circle.  
True  False

(f) A fourth of a circle is called a quarter-circle.  
True  False

27 Draw the 1st shape in this pattern.

```
...  
5th  6th  7th  8th  9th  10th  ...
```
28 Fill in the blanks.

(a) A cube has ______ faces that are squares.

(b) A cube has ______ corners.

(c) A cuboid has ______ edges.

(d) A cylinder has ______ curved surfaces.

(e) A cone has ______ face that is a circle.

(f) A sphere has ______ corners.
## Answer Key

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(a) 76 (b) 91 (c) 425 (d) 302 (e) 231 (f) 374</td>
</tr>
<tr>
<td>2</td>
<td>(a) 35 (b) 71 (c) 88 (d) 45</td>
</tr>
<tr>
<td>3</td>
<td>(a) 28 (b) 863 (c) 730 (d) 42 (e) 103 (f) 309</td>
</tr>
<tr>
<td>4</td>
<td>(a) 21 (b) 36 (c) 3 (d) 32 (e) 9 (f) 4</td>
</tr>
<tr>
<td>5</td>
<td>(a) 5 (b) 6 (c) 8 (d) 7 (e) 4 (f) 2</td>
</tr>
<tr>
<td>6</td>
<td>8 bags of rice weigh 40 kg.</td>
</tr>
<tr>
<td>7</td>
<td>There are 6 flowers in each vase.</td>
</tr>
<tr>
<td>8</td>
<td>There are 9 bags of lemons.</td>
</tr>
<tr>
<td>9</td>
<td>She needs 8 boxes.</td>
</tr>
<tr>
<td>10</td>
<td>(a) 5¢ (b) 78¢ (c) 43¢ (d) 66¢</td>
</tr>
<tr>
<td>11</td>
<td>$0.54, $7.10, $0.08, $63.00</td>
</tr>
<tr>
<td>12</td>
<td>(a) 30 dimes make $3.00. (b) 15 quarters make $3.75. (c) 100 pennies make $1.00. (d) 16 nickels make 80¢.</td>
</tr>
<tr>
<td>13</td>
<td>(a) $2.80 (b) $2.90 (c) $8.15 (d) 35¢ (e) $2.09 (f) $2.20</td>
</tr>
<tr>
<td>14</td>
<td>(a) Sofia has the most money. (b) Emma and Alex have the same amount of money. (c) Dion has less money. He has 14¢ (or $0.14) less.</td>
</tr>
</tbody>
</table>
15 $2.05

16 (a) $\frac{2}{5}$  (b) $\frac{5}{7}$

17 (a) $\frac{1}{4}$  (b) $\frac{2}{9},\frac{7}{9}$
   (c) 2

18 (a) 3  (b) 7
   (c) 3  (d) $\frac{5}{12}$

19 $\frac{1}{9},\frac{1}{8},\frac{1}{4},\frac{1}{3},\frac{1}{2}$

20 Mei ate more cake.

21 (a) 7:40  (b) seven forty
   (c) 20  (d) 1:40
   (e) 

22 10:00 a.m.

23 11:45 a.m.

24 (a) False  (b) True
   (c) False  (d) True

25 (a) 20
   (b) Monday and Wednesday
   (c) Friday  (d) 15
   (e) 105

26 (a) True  (b) True
   (c) False  (d) True
   (e) False  (f) True

27 

28 (a) A cube has 6 faces that are squares.
   (b) A cube has 8 corners.
   (c) A cuboid has 12 edges.
   (d) A cylinder has 1 curved surface.
   (e) A cone has 1 face that is a circle.
   (f) A sphere has 0 corners.