Education Bureau
Territory-wide System Assessment 2011
Primary 6
Mathematics

Instructions:
1. Stick barcode labels on pages 1, 3, 5, 7 and 9 in the spaces provided.
2. There are 41 questions in this test. Answer all questions.
3. Time allowed is 50 minutes.
4. Write your answers in this Question-Answer Booklet.
5. Do not write in the margins.
6. Use of calculators is not allowed.
7. Do your rough work on the rough work sheet provided.
8. Write your School Code, Class and Class Number in the boxes below.

Instructions for answering questions:
(a) Multiple choice questions – Blacken the circle next to the correct answer with an **HB pencil**.
   For example:
   - ● A
   - ○ B
   - ○ C
   - ○ D

(b) Questions in which you are asked to “Show your working” – Write your mathematical expressions, answers and statements/conclusions in the spaces provided. There is NO need to show your rough work.

(c) Other types of questions – Answer as required in the spaces provided.

School Code
學校編號

Class
班別

Class No.
班號

Write one **capital letter** in this box
此格只許填寫一個大楷英文字母
1. Which of the following numbers has the digit ‘3’ in the ten thousands place and the digit ‘9’ in the tens place?
   ○ A. 3009
   ○ B. 30090
   ○ C. 30900
   ○ D. 39000

2. Which of the following numbers is a multiple of 20?
   ○ A. 4
   ○ B. 5
   ○ C. 10
   ○ D. 20

3. List all the factors of 46.
   Answer: __________________________

4. Fill in each of the following boxes with the correct number.

   (a) \[
   \begin{array}{c}
   18 \\
   \hline
   \end{array}
   \]
   \[
   \begin{array}{c}
   \hline
   \hline
   \hline
   \end{array}
   \]
   \[
   = 2
   \]
   \[
   = 5
   \]

   (b) \[
   \begin{array}{c}
   \hline
   \hline
   \hline
   \end{array}
   \]
   \[
   12
   \]
5. (a) Within 30, all the common multiples of 2 and 7 are ________________.

(b) The Least Common Multiple (L.C.M.) of 2 and 7 is ____________.

6. Which of the following figures has $\frac{1}{3}$ of the whole shaded?

- [ ] A.
- [ ] B.
- [ ] C.
- [ ] D.
7. (a) Change $2\frac{3}{5}$ into an improper fraction.

Answer:

(b) Change $\frac{93}{9}$ into a mixed number.

Answer:

8. Which of the following fractions is the largest?

$\frac{2}{9}$, $\frac{8}{27}$, $\frac{8}{15}$

Answer:

9. In the number 1.28, the digit ‘2’ is in

the ____________ place.

10. $364 - (264 + 73) = ______$
11. In the number 193.8, which digit stands for the smallest value?
   ○ A. '1'
   ○ B. '3'
   ○ C. '8'
   ○ D. '9'

12. \[20 \div 6 \times 42 = \quad \]

13. \[\frac{6\frac{3}{5}}{5\frac{2}{3}} = \quad \]

14. \[\frac{3}{8} \times \frac{4}{9} \div 4 = \quad \]

15. \[10.11 + 7.95 - 2.16 = \quad \]

16. \[35 \times 0.2 \times 8.7 = \quad \]
17. A herbal tea shop had originally 50 litres of herbal tea. 20 \(\frac{7}{10}\) litres were sold in the morning and 10 \(\frac{1}{2}\) litres were added in the afternoon. How many litres of herbal tea were left? (Show your working)

18. (a) Change \(2\frac{1}{10}\) into a percentage.

Answer: \(\ldots\) %

(b) Change 55% into a fraction and reduce it to the simplest form.

Answer: \(\ldots\)
19. A 0.35 L can and a 1.25 L carton of orange juice just fill up 8 cups of equal capacity. What is the capacity of each cup?
(Show your working)

20. The total weight of 28 tea bags is 50.4 g.
Each tea bag weighs _________ g.

The cost of a tricycle is _________ % of the cost of a bicycle.
22. Vivian ordered a pizza in the evening. The clock showed the time when the order was made.

(a) Vivian ordered the pizza at ________ minutes to ________ in the * morning / afternoon. (*Circle the answer)

(b) Vivian received the pizza half an hour after the order was made. In ‘24-hour time’, she received the pizza at ________ : ________.

23. Fill in each blank with a suitable unit of measurement.

(a) The height of a child is about 1.2 ________.

(b) The weight of ten pencils is about 200 ________.

(c) The capacity of a bowl is about 500 ________.
Study the diagrams above. Which of the following is correct?

- A. [Image of fruits] is lighter than [Image of fruit].
- B. [Image of fruits] and [Image of fruit] weigh the same.
- C. [Image of fruit] is the heaviest.
- D. [Image of fruit] and [Image of fruit] weigh the same.
25. (a) All the water in Beaker A just fills up the teapot.
   The capacity of the teapot is _______ L.

(b) All the water in Beaker B and Beaker C just fills up the water bottle. The capacity of the water bottle is _______ mL.

(c) The capacity of the teapot is
   * larger than / smaller than / equal to that of the water bottle. (* Circle the answer)

26. The diameter of a circle is 1.6 m. Its circumference is about _______ m. (Give the answer as a whole number)
27. The area of the parallelogram above is \( \underline{\phantom{0000}} \text{ cm}^2 \).

28. The figure above shows a cube of side 2 cm and a rectangular container.

(a) The volume of the cube is \( \underline{\phantom{0000}} \text{ cm}^3 \).

(b) If the cube is immersed in the rectangular container, the water level increases by \( \underline{\phantom{000}} \text{ cm} \).
29. The speed of a car on a highway is about
80________________________.
(Write a suitable unit)

30. Which of the following 3-D shapes is a pentagonal pyramid?

- A.
- B.
- C.
- D.
In the figure above, CE is a straight line. DA and DB are radii of the circle.

(a) Which point is the centre?
   
   Answer: Point _______ is the centre.

(b) CE is a ____________ of the circle.

(c) The shaded part in the figure is
   
   * an equilateral / an isosceles / a right-angled triangle. (*Circle the answer)

32. In the figures below, arrange the angles r, s and m from the largest to the smallest.

Answer: _______ , _______ , _______  
          (Largest) °            °            °  (Smallest)
33. Study the 2-D figures below.

(a) The figure below has * straight line(s) / curve(s) / parallel lines / perpendicular lines.
(*Circle all the answers)

(b) The figure below has * straight line(s) / curve(s) / parallel lines / perpendicular lines.
(*Circle all the answers)

(c) The figure below has * straight line(s) / curve(s) / parallel lines / perpendicular lines.
(*Circle all the answers)
(a) Sports Ground is to the _________ of Clinic.
(direction)

(b) Starting from School, Vivian goes _________ to Library.
(direction)

(c) Puppy is to the south-east of _____________.

35. Agnes buys 3 packs of candies. Each pack has $y$ candies. Agnes eats 10 candies. The remaining number of candies is __________.

36. $14 + \frac{A}{2} = 20$

   $A =$ __________

37. $9y - 3.6 = 7.2$

   $y =$ __________

38. Linda spends $354 on a schoolbag. The price of the schoolbag is $\frac{4}{5}$ of her pocket money plus $6. Find the original amount of Linda’s pocket money by the **method of solving an equation**. (Show your working)
39. The following table shows the number of customers of Tasty Fastfood during lunch hours for the last four days.

<table>
<thead>
<tr>
<th></th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of customers</td>
<td>50</td>
<td>75</td>
<td>42</td>
<td>34</td>
</tr>
<tr>
<td>Rounded to the nearest tens</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(a) Round off the number of customers to the nearest tens and complete the above table.

(b) Using one 😊 to represent 10 customers, construct a pictogram with the data rounded to the nearest tens and give it a suitable title.

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(Title)
Each 😊 stands for 10 customers
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Monday Tuesday Wednesday Thursday
40. The pupils of a district voted for their favourite summer activities. Each pupil voted for one activity only.

**Favourite Summer Activities of Pupils of the District**

<table>
<thead>
<tr>
<th>Summer Activity</th>
<th>Number of Pupils</th>
</tr>
</thead>
<tbody>
<tr>
<td>Football</td>
<td>4000</td>
</tr>
<tr>
<td>Camping</td>
<td>3000</td>
</tr>
<tr>
<td>Swimming</td>
<td>2200</td>
</tr>
<tr>
<td>Hiking</td>
<td>2000</td>
</tr>
<tr>
<td>Penmanship</td>
<td>1000</td>
</tr>
</tbody>
</table>

(a) The most popular summer activity is ____________.

(b) The summer activity with fewer than 1 200 votes is ____________.

(c) The District Council is going to hold all the summer activities with more than 2 500 votes. These activities are ________________________________________________________________________________________________.
41. Paul’s expenses on breakfast are $7.50, $8.50, $9.00 and $7.00 in four days. What is Paul’s average daily expense on breakfast?
(Show your working)