$\qquad$


## GRADE 3 <br> MATHEMATICS

## Administered April 2009

## MATHEMATICS

Page 3

## Mathematics Chart

## LENGTH

## Metric

1 meter = 100 centimeters
1 centimeter = 10 millimeters

Customary
1 yard $=3$ feet
1 foot = 12 inches

## TIME

$$
\begin{aligned}
1 \text { year } & =365 \text { days } \\
1 \text { year } & =12 \text { months } \\
1 \text { year } & =52 \text { weeks } \\
1 \text { week } & =7 \text { days } \\
1 \text { day } & =24 \text { hours } \\
1 \text { hour } & =60 \text { minutes } \\
1 \text { minute } & =60 \text { seconds }
\end{aligned}
$$

Metric and customary rulers can be found on the separate Mathematics Chart.

## DIRECTIONS

Read each question and choose the best answer. Be sure to mark all of your answers.

## SAMPLE A

Which of these numbers is greater than 3,590 ? Mark your answer.
$\checkmark 3,491$
$\checkmark 3,601$
๑ 3,589
๑ 3,578

## SAMPLE B

Tomás counted 8 oranges, 7 pears, and 4 apples in a fruit bowl. What was the total number of oranges and apples in the fruit bowl?

Record your answer in the boxes below. Then fill in the bubbles. Be sure to use the correct place value.

|  |  |
| :---: | :---: |
| (1) | (0) |
| (1) | (1) |
| (2) | (2) |
| (3) | (3) |
| (4) | (4) |
| (5) | (5) |
| (6) | (6) |
| (7) | (7) |
| (8) | (8) |
| (9) | (9) |

1 Juanita gave $\$ 5.65$ to her brother. Which of the following sets shows exactly $\$ 5.65$ ? Mark your answer.


2 Look at the two figures below.


Which statement about these figures is true?
Mark your answer.
$\varnothing$ They both have fewer than 7 sides.
$\varnothing$ They both have more than 5 vertices.
$\varnothing$ They are both hexagons.
$\varnothing$ They are both octagons.

3 Which number sentence is in the same fact family as $10 \times 2=20$ ? Mark your answer.

$$
\begin{aligned}
& \sigma 2 \times 10=200 \\
& 10 \div 2=5 \\
& \varnothing 20 \times 2=40 \\
& \square 20 \div 10=2
\end{aligned}
$$

4 The pictograph below shows the number of miles each of four people traveled by canoe.

Miles Traveled by Canoe

| Samuel |  |
| :--- | :--- | :--- |
| Amanda |  |

Each means 4 miles.

How many more miles did Brittany travel by canoe than Amanda? Mark your answer.
$\checkmark \quad 12$ miles
$\checkmark 2$ miles
$\oslash 4$ miles
$\square 16$ miles

5 Carly invited 13 friends and her 2 cousins to a party. If 5 of these people did not come, which expression can be used to find the number of people who came to Carly's party? Mark your answer.
$\triangleright 13-2-5$
$\leftharpoondown \quad 13-2+5$
$\triangleright 13+2-5$

6 What number does point $L$ best represent on the number line below? Mark your answer.

$\triangleright 60$
$\square 64$
$\triangleright 61$
$\square 63$

7 Donna read her library book from 8:15 P.M. to 8:32 P.M. Which clock shows the time Donna stopped reading her book? Mark your answer.


8 In the year 2000, there were 173,670 people in Texas who walked to work every day. Which answer choice has the same value as 173,670 ? Mark your answer.

$$
\begin{array}{ll}
\sigma & 10,000+7,000+300+600+70 \\
๑ & 100,000+70,000+3,000+600+70 \\
๑ & 10,000+70+3+600+70 \\
๑ & 100,000+7,000+300+600+70
\end{array}
$$

9 Mrs. Rodríguez makes shirts like the one shown below.


Each shirt has the same number of buttons. If Mrs. Rodríguez counts the buttons in groups of 7 , which list shows only numbers she will say? Mark your answer.
$\leftharpoondown \quad 7,17,27,37$
$\leftharpoondown 10,17,24,31$
$\leftharpoondown 14,22,26,32$
$\leftharpoondown 14,21,28,35$

10 Tiffany has 1 large box of 64 crayons and 3 small boxes of 8 crayons each. Which question CANNOT be answered using the information given? Mark your answer.
$\sigma$
What is the total number of crayons Tiffany has in all the boxes?
$\varnothing$ How many red crayons does Tiffany have?
$\sigma$ What is the total number of crayons in the 3 small boxes?
$\varnothing$ How many boxes of crayons does Tiffany have?

11 Look at the shaded figure below.

|  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

$\square=1$ square unit

What is the area of the shaded figure? Mark your answer.
$\sqsupset \quad 22$ square units
$\leftharpoondown \quad 24$ square units
$\checkmark \quad 26$ square units
$\leftharpoondown 32$ square units

12 A group of 20 students played a game at recess. They formed teams so that each team had the same number of players. Every student was on a team. Which of these answer choices could describe the teams? Mark your answer.
$\sqsupset 5$ teams with 4 players each
$\triangleleft 6$ teams with 3 players each
$\varnothing 10$ teams with 10 players each
$\leftharpoondown \quad 2$ teams with 18 players each

13 In the figure below, which line best represents a line of symmetry? Mark your answer.

$\checkmark$ Line $w$
$\oslash$ Line $x$
$\sigma$ Line $y$
$\sigma$ Line $z$

14 Thomas had a bottle of bubbles and a wand like the ones shown below. Use the ruler on the Mathematics Chart to measure the length of the line segments next to the bottle of bubbles and the wand to the nearest centimeter.


## Wand



About how much longer is the bottle of bubbles than the wand? Mark your answer.
$\triangleright 13 \mathrm{~cm}$
$\square 7 \mathrm{~cm}$
$\triangleright 1 \mathrm{~cm}$
$\square 2 \mathrm{~cm}$

15 There are four students who attend the math club's meetings after school. Each time a student attends a meeting, a ticket with that student's name on it is placed into a jar. The table below shows the number of tickets each student has in the jar after six weeks.

| Math Club Ticket Jar |  |
| :--- | :---: |
| Student | Number of <br> Tickets |
| Alexis | 5 |
| Michelle | 3 |
| Nathan | 6 |
| Sergio | 5 |

A ticket is taken from the jar at random. Which of these best describes the chance that the ticket will have Michelle's name on it rather than another student's? Mark your answer.
$\sigma$ Least likely
$\sigma$ Certain
$\triangleleft$ Most likely
$\oslash$ Impossible

16 Sarah wants to compare the ages of the children in her family. The table below shows the children's ages.

Sarah's Family

| Child | Age |
| :---: | :---: |
| Sarah | 12 |
| Anne | 8 |
| Ross | 10 |

Which of the following compares the children's ages correctly? Mark your answer.
$\checkmark \quad 10>8>12$
ص $8>12<10$
$\triangleright 12>10>8$
$\sigma$ Not here

17 The table below shows the number of people who attended a festival on each of three days.

Festival Attendance

| Day | Number of <br> People |
| :---: | :---: |
| Sunday | 796 |
| Monday | 694 |
| Tuesday | 689 |

Which number sentence shows the best estimate of the total number of people attending the festival during these three days? Mark your answer.
$\triangleright 700+600+600=1,900$
$\checkmark 700+600+700=2,000$
$\triangleleft 800+600+700=2,100$
$\checkmark 800+700+700=2,200$

18 Natalia drew the following pattern of hearts in her notebook.


If Natalia continues this pattern, which arrangement of hearts will come next? Mark your answer.



19 The dimensions of a rectangular floor are shown below.


What is the perimeter of this floor in feet?

Record your answer in the boxes below. Then fill in the bubbles. Be sure to use the correct place value.

|  |  |
| :---: | :---: |
| (0) | (0) |
| (1) | (1) |
| (2) | (2) |
| (3) | (3) |
| (4) | (4) |
| (5) | (5) |
| (6) | (6) |
| (7) | (7) |
| (8) | (8) |
| (9) | (9) |

20 Which of the following groups shows that $\frac{3}{8}$ of the shapes are circles? Mark your
answer.


21 Several friends went on a wagon ride at a farm. They all got on the wagon at the barn.

- First 3 friends got off the wagon at the house.
- Then 5 friends got off the wagon at the pond.
- At that point 13 friends were left on the wagon.

How many friends began the wagon ride at the barn? Mark your answer.
$\triangleleft 18$
$\square 5$
$\square 8$
$๑ \quad 21$

22 There are 5 school days in a week. Which table correctly shows the total number of school days in 8,9 , and 12 weeks? Mark your answer.

School Days

$\curvearrowright$| Number of <br> Weeks | Total Number <br> of School Days |
| :---: | :---: |
| 8 | 40 |
| 9 | 45 |
| 12 | 60 |

School Days

$\curvearrowright$| Number of <br> Weeks | Total Number <br> of School Days |
| :---: | :---: |
| 8 | 13 |
| 9 | 14 |
| 12 | 17 |

School Days

$\checkmark$| Number of <br> Weeks | Total Number <br> of School Days |
| :---: | :---: |
| 8 | 35 |
| 9 | 45 |
| 12 | 60 |

School Days

$\leftharpoondown$| Number of <br> Weeks | Total Number <br> of School Days |
| :---: | :---: |
| 8 | 40 |
| 9 | 45 |
| 12 | 50 |

23 Which point on the number line best represents 630? Mark your answer.

$\sigma$ Point $W$
$\sigma$ Point $X$
$\sigma$ Point $Y$
$\sigma$ Point $Z$

24 Mr. Johnson's company built 4 office buildings. Each building had 43 windows and 21 doors. What was the total number of windows on these 4 office buildings? Mark your answer.
$\triangleright 162$
$๑ 68$
$๑ 84$
$\checkmark 172$

25 Nadia sorted her flash cards into two sets. She put certain cards in Set A, as shown below.


She put all her other flash cards in Set B.


Which of these flash cards could belong in Set A? Mark your answer.
$\triangleright \quad 14-3$
$\triangleright \quad 8+4$
$\triangleright \quad 12 \times 2$
$\checkmark \quad 8+8$

26 Look at the number pattern below.
$48,45,42,39,36, \ldots,-$
If the pattern continues, what two numbers will come next? Mark your answer.
$\leftharpoondown 33,20$
$\square \quad 28,25$
$\leftharpoondown 33,30$
$\leftharpoondown 35,32$

27 The numbers below are arranged from greatest to least.
7,098


Which of the following numbers belongs in the empty box? Mark your answer.
$\leftharpoondown 6,901$
$\leftharpoondown 7,500$
$\leftharpoondown \quad 6,109$
$\leftharpoondown 7,005$

28 A school bus had 16 seats. There were 2 children sitting on each seat. At the first bus stop 8 children got off the bus. How many children were left on the bus? Mark your answer.
$๑ 26$
$\leftharpoondown \quad 24$
$\leftharpoondown 6$
$\triangleright 2$

29 Look at the puzzle below.


Which two figures appear to be congruent? Mark your answer.
$\sigma P$ and $S$
$\sigma T$ and $U$
$\sigma \quad Q$ and $T$
$\sigma R$ and $S$

30 Jordan started tennis camp with 4 cans of tennis balls. There were 3 balls in each can, as shown below.


At the end of camp, Jordan had lost 7 of his tennis balls. Which method can be used to find how many balls Jordan had left? Mark your answer.
$\sqsupset \quad$ Multiply 3 by 4 and then subtract 7 from the product
$\triangleright \quad$ Multiply 3 by 4 and then add 7 to the product
$\triangleright \quad$ Add 3, 4, and 7
$\square \quad$ Add 4 and 3 and then subtract 7 from the sum

31 Water boils at $212^{\circ} \mathrm{F}$ at sea level. Which of the following thermometers shows this temperature? Mark your answer.


32 Brett has only 75 ¢. He spends $68 ¢$ on some glue. Which of these groups of coins could Brett have after he spends 68¢? Mark your answer.


33 Each side of the triangle shown below is the same length.


What is the perimeter of the triangle?
Mark your answer.
$\varnothing 81 \mathrm{in}$.
$\oslash \quad 27 \mathrm{in}$.
$\oslash 36 \mathrm{in}$.
$\sigma 18 \mathrm{in}$.

34 José had 17 toy cars. His father bought him 27 more toy cars. Then Josés friend gave him another 13 toy cars. Which of these is the best estimate of the number of toy cars José had then? Mark your answer.

35 For a class activity Mrs. Gaona asked Tanya to write down a number. Then Mrs. Gaona wrote a new number next to it using a certain rule. The table below shows the number Mrs. Gaona wrote next to each number Tanya wrote.

## Class Activity

| Tanya's Number | Mrs. Gaona's <br> Number |
| :---: | :---: |
| 3 | 7 |
| 4 | 8 |
| 9 | 14 |
| 10 | 16 |
| 12 |  |

What number did Mrs. Gaona write if Tanya's number was 9 ? Mark your answer.
$\triangleright \quad 15$
$\square 9$
$\square 6$
$\triangleright \quad 13$

36 The table below shows the number of letters Roberto got each month for four months.
Roberto's Letters

| Month | Jan. | Feb. | Mar. | Apr. |
| :--- | :---: | :---: | :---: | :---: |
| Number of Letters | 6 | 10 | 7 | 8 |

Which pictograph correctly shows this information? Mark your answer.

| Roberto's Letters |  |
| :---: | :---: |
| Jan. | $\triangle \square \boxtimes \square \boxtimes$ |
| Feb. | $\square \square \square \square \square \square \square \boxtimes \square$ |
| Mar. | $\boxtimes \boxtimes \square \boxtimes \square \boxtimes \square$ |
| Apr. | $\square \boxtimes \square \boxtimes \square \square 凶 \square$ |

Each $\boxtimes$ means 2 letters.

Roberto's Letters

| Jan. | $\Delta \boxtimes \boxtimes \square \boxtimes$ |
| :---: | :---: |
| Feb. | $\Delta \boxtimes \Delta \square \boxtimes \Delta \square \boxtimes \Delta$ |
| Mar. | $\boxtimes \square \boxtimes \square \boxtimes \square$ |
| Apr. |  |

Each means 2 letters.

Roberto's Letters


Each $\boxtimes$ means 2 letters.

Roberto's Letters


Each means 2 letters.

37 A giant panda ate 542 pounds of food last week and 498 pounds of food this week. What was the total number of pounds of food the giant panda ate during these two weeks? Mark your answer.
$\checkmark 1,040$ pounds
$\sqsubset 930$ pounds
$\triangleleft 156$ pounds
$\leftharpoondown 44$ pounds

38 Look at figure $X$ below.


Figure $X$
Which of the following figures has more faces than figure $X$ ? Mark your answer.


39 Lance wanted to share 42 peanuts with 7 of his friends.


He gave each friend the same number of peanuts. Which number sentence shows the number of peanuts Lance gave each friend? Mark your answer.

$$
\begin{aligned}
& \curvearrowleft 42 \div 7=6 \\
& \varnothing 42 \times 7=294 \\
& \square 42+7=49 \\
& \square 42-7=35
\end{aligned}
$$

40 Dr. Winters takes care of animals. The graph below shows the number of animals of different types she treated last month.


Based on the graph, which statement about Dr. Winters is true? Mark your answer.
$\sigma$ Dr. Winters treated an equal number of cats and dogs.
$\sigma$ Dr. Winters treated exactly 4 types of animals.
$\sigma$ Dr. Winters treated an equal number of hamsters and birds.
Dr. Winters treated exactly 50 cats.

TAKS GRADE 3
MATHEMAATICS
APRTL 2009

