Benchmark Test : Grade 6 Math

1 **Benchmark: MA.6.A.3.5**

Which expression is equivalent to $ab + ac$?

A $a \times (b + c)$

B $a^2 + bc$

C $a + b + a + c$

D $(a \times b) \times (a \times c)$

2 **Benchmark: MA.6.A.2.2**

Christopher has won 24 tennis matches and lost 8. What is his ratio of wins to losses?

F 3 to 1

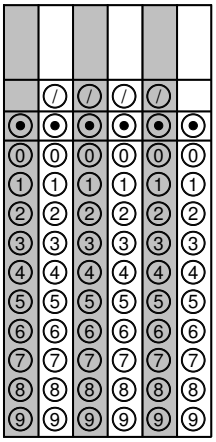
G 3 to 2

H 2 to 3

I 1 to 3

3 **Benchmark: MA.6.A.2.1**

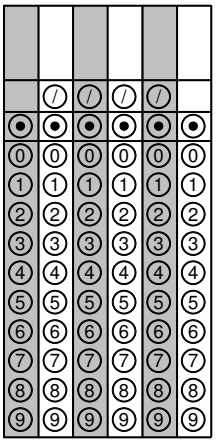
Rob can type at the rate of 60 words per minute, and Steve can type at the rate of 45 words per minute. How many words can the two type if they work together for 1.5 hours?



Go On

4 **Benchmark: MA.6.A.2.1**

During a thunderstorm, 4 inches of rain fell in $2\frac{1}{2}$ hours. What was the rate of rainfall in inches per hour?



5 **Benchmark: MA.6.A.5.2**

Madu took a survey of his classmates' favorite subjects in school. The survey revealed that 30% of his classmates liked Math the best, $\frac{1}{5}$ liked Science the best, $\frac{1}{3}$ liked English the best, and $\frac{1}{6}$ liked Social Studies the best. Which subject was liked best by the most students?

A Science

B Math

C Social Studies

D English

Go On

6 **Benchmark: MA.6.A.1.3**

If you have $10.25 in quarters, how many quarters do you have?

F 10

G 40

H 41

I 60

7 **Benchmark: MA.6.A.1.1**

Carmen was planting her garden. She reserved $\frac{1}{2}$ of the garden space for things she wanted to plant at a later time. She marked off $\frac{7}{10}$ of the reserved portion of the garden for planting strawberries. Which expression can be used to find the fraction of the whole garden that Carmen marked off for planting strawberries?

A $\frac{7}{10} \div \frac{1}{2}$

B $\frac{7}{10} + \frac{1}{2}$

C $\frac{7}{10} - \frac{1}{2}$

D $\frac{7}{10} \times \frac{1}{2}$

8 **Benchmark: MA.6.A.3.1**

A telemarketer earns $7.00 for each hour he works. In addition, he earns a $3.00 bonus for each sale he makes. Which of the following expressions represents the telemarketer's earnings for a week in which he makes 9 sales and works h hours?

F $7.00h + (3.00 \times 9)$

G $9 + 3.00 \times 7.00h$

H $7.00 \times (h + 3.00)$

I $9h + (3.00 \times 7.00)$

Go On

9 **Benchmark: MA.6.A.1.3**

Jennifer spends $\frac{1}{4}$ of her day at school. Math, reading, social studies and science are $\frac{3}{4}$ of her total time in school. How many hours are spent at these subjects?

A 3 hours

B 4 hours

C $4\frac{1}{2}$ hours

D 6 hours

10 **Benchmark: MA.6.A.3.5**

Which of the following expressions is equivalent to $24x - y - 2x + 13 - 2 - 4z$?

F $33x + 4y + 4z$

G $21x + 11 - 4z$

H $22x - y - 4z + 11$

I $26x + y + 15 + 4z$

11 **Benchmark: MA.6.A.1.3**

A single train ticket costs $3.50. A book of 5 costs $15.00. How much can be saved by buying a book of 5 tickets rather than 5 single tickets?

A $0.50

B $1.50

C $2.50

D $5.00

Go On

12 **Benchmark: MA.6.A.5.2**

An emergency operator reported that $\frac{1}{4}$ of the calls she received were requests for the police, 15% were requests for the fire department, 40% were requests for paramedics, and the remaining $\frac{1}{5}$ were requests for all three services. According to the operator, which of the following is requested most often?

F fire department

G paramedics

H police

I all three services

13 **Benchmark: MA.6.A.5.3**

At the bookstore, Dante bought a book for $5.95, a blank journal for $4.25, a birthday card for $1.95, and a bookmark for 75¢. Which of the following is the best estimate of the amount Dante spent?

A $10

B $13

C $16

D $19

14 **Benchmark: MA.6.A.2.2**

A 128-ounce jug of milk costs $3.20, and a 64-ounce jug of milk costs $2.24. What is the difference in cost per ounce between the larger and the smaller jugs of milk?

F $0.01

G $0.02

H $0.04

I $0.05

Go On

15 **Benchmark: MA.6.A.5.2**

Which of these has the **greatest** value?

A 0.85

B 72%

C $\frac{3}{4}$

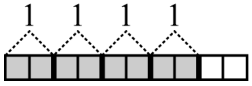
D 0.092

16 **Benchmark: MA.6.A.1.1**

The model below represents $\frac{8}{10}$.

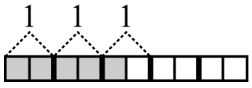
Which model represents the value of $\frac{8}{10} \div \frac{1}{5}$?

F

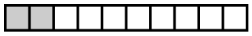


G

H



I



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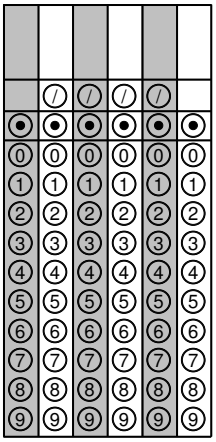
17 **Benchmark: MA.6.A.3.1**

A car rental agency charges \$50.00 per day plus \$0.18 for each mile driven (x). The total cost for one day's rental can be calculated using the expression below.

$$\$0.18x + \$50.00$$

Using this expression, how much will it cost to rent a car for one day and drive 192 miles?



18 **Benchmark: MA.6.A.5.3**

Dani was assigned 42 homework problems in her math class. So far, she has completed 34 of the problems. **About** what percentage of the problems has Dani completed?

F 60%

G 70%

H 80%

I 90%

Go On

19 **Benchmark: MA.6.A.5.1**

Ken planted 8 flowers and 4 shrubs in his mother's garden. He ran out of fertilizer before he planted 2 of the flowers and 1 of the shrubs, so he planted them without fertilizer. What percentage of plants were planted without fertilizer?

A 12.5%

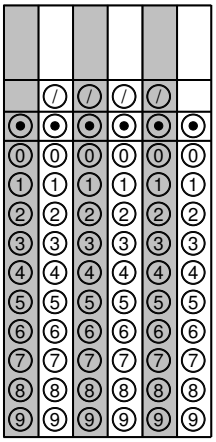
B 25%

C 50%

D 75%

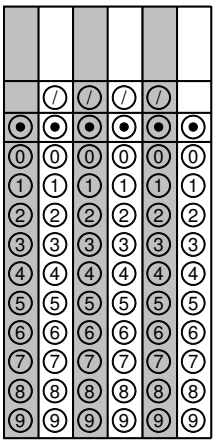
20 **Benchmark: MA.6.A.2.1**

Gretchen made 189 cookies in 4.5 hours. What was her rate in cookies per hour?



21 **Benchmark: MA.6.A.5.1**

Mia bought a package of hamburger buns that contained 8 buns. She used 2 of the buns for dinner. What percentage of the 8 buns did she use for dinner?



22 **Benchmark: MA.6.A.2.2**

Cynthia is making peanut butter cookies. Her recipe calls for $\frac{1}{3}$ cup of peanut butter to make 1 dozen cookies. Which fraction **best** represents the ratio of cups of peanut butter to number of cookies?

F $\frac{1}{36}$

G $\frac{1}{12}$

H $\frac{1}{6}$

I $\frac{1}{4}$

Go On

23 **Benchmark: MA.6.A.3.5**

Which of the following statements is NOT true?

A $x \times 0 = 1$

B $0 \times x = 0$

C $x + 0 = x$

D $x \times 1 = x$

24 **Benchmark: MA.6.A.3.1**

Jakob is running in a race to raise money for his school. His father will pay $1.00 per mile, his mother will pay $1.00 per mile, and his brother will pay $0.50 per mile. Let m represent the number of miles Jakob runs. Which of the following expressions can be used to find out how much money Jakob will raise?

F $(m + 1.00) + (m + 1.00) + (m + 0.50)$

G $(1.00m)(1.00m)(0.50m)$

H $m \times (1.00 + 1.00 + 0.50)$

I $m + (1.00 \times 1.00 \times 0.50)$

25 **Benchmark: MA.6.A.3.1**

Jolie has x quarters for the arcade. Lee has y quarters for the arcade. Paula has 4 times as many quarters as Jolie. Freddy has 15 quarters.

Which expression represents the total number of quarters Jolie, Lee, Paula, and Freddy have all together?

A $y - x - 4x + 15$

B $15 + 4x + x - y$

C $x + y + 4x + 15$

D $4x - x + y + 15$

Go On

26 **Benchmark: MA.6.A.2.2**

Emma throws javelin for her school's track team. At one meet she threw the javelin twice. On her first attempt, she threw the javelin 28 meters. On her second attempt, she threw the javelin 32 meters. What is the ratio between the length of her first throw and the length of her second throw?

F 7 to 8

G 1 to 2

H 1 to 4

I 7 to 4

27 **Benchmark: MA.6.A.5.2**

Which of the following numbers is **less** than $\frac{21}{80}$?

A $\frac{1}{4}$

B $\frac{5}{16}$

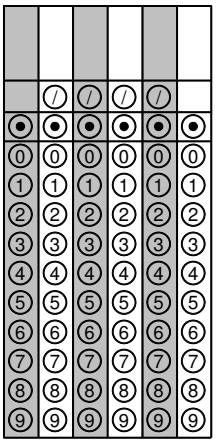
C $\frac{21}{70}$

D $\frac{31}{80}$

Go On

28 **Benchmark: MA.6.A.5.1**

A flower garden contains 2 roses, 6 tulips, and 4 daffodils. What percentage of the flowers are tulips?



29 **Benchmark: MA.6.A.1.1**

Athena ordered a pizza. When she finished eating, $\frac{3}{4}$ of the pizza remained uneaten. Her brother then ate $\frac{5}{6}$ of the remaining pizza. Which expression can be used to find the fraction of the original whole pizza that Athena's brother ate?

A $\frac{5}{6} \div \frac{3}{4}$

B $\frac{5}{6} \times \frac{3}{4}$

C $\frac{5}{6} + \frac{3}{4}$

D $\frac{5}{6} - \frac{3}{4}$

Go On

30 **Benchmark: MA.6.A.5.3**

New England comprises 6 of the 50 states. **About** what percentage of the states are a part of New England?

F 5%

G 10%

H 25%

I 35%

Benchmark Test : Grade 6 Math

Name _____ **Date** _____

Class/Grade _____

DIRECTIONS FOR MARKING ANSWER SHEET
- Use a #2 pencil only.
- Do NOT use ink or ballpoint pens.
- Make heavy black marks that fill the ovals completely.
- Erase clearly any answer you wish to change.
- Make no stray marks on the answer sheet.

1 Ⓐ Ⓑ Ⓒ Ⓓ	9 Ⓐ Ⓑ Ⓒ Ⓓ	17 Respond in Test	25 Ⓐ Ⓑ Ⓒ Ⓓ
2 Ⓕ Ⓖ Ⓗ Ⓘ	10 Ⓕ Ⓖ Ⓗ Ⓘ	18 Ⓕ Ⓖ Ⓗ Ⓘ	26 Ⓕ Ⓖ Ⓗ Ⓘ
3 Respond in Test	11 Ⓐ Ⓑ Ⓒ Ⓓ	19 Ⓐ Ⓑ Ⓒ Ⓓ	27 Ⓐ Ⓑ Ⓒ Ⓓ
4 Respond in Test	12 Ⓕ Ⓖ Ⓗ Ⓘ	20 Respond in Test	28 Respond in Test
5 Ⓐ Ⓑ Ⓒ Ⓓ	13 Ⓐ Ⓑ Ⓒ Ⓓ	21 Respond in Test	29 Ⓐ Ⓑ Ⓒ Ⓓ
6 Ⓕ Ⓖ Ⓗ Ⓘ	14 Ⓕ Ⓖ Ⓗ Ⓘ	22 Ⓕ Ⓖ Ⓗ Ⓘ	30 Ⓕ Ⓖ Ⓗ Ⓘ
7 Ⓐ Ⓑ Ⓒ Ⓓ	15 Ⓐ Ⓑ Ⓒ Ⓓ	23 Ⓐ Ⓑ Ⓒ Ⓓ	
8 Ⓕ Ⓖ Ⓗ Ⓘ	16 Ⓕ Ⓖ Ⓗ Ⓘ	24 Ⓕ Ⓖ Ⓗ Ⓘ	