

SAMPLE TEST

MATHEMATICS



2007 Oregon Content Standards
Grades 3 - 8

2010-2013 Mathematics Sample Test – Grade 6

1. There is a $\frac{2}{3}$ probability that you will have homework in math class.

What is the probability you will NOT have homework?

- A. 0
- B. $\frac{1}{3}$
- C. $\frac{2}{3}$
- D. 1
2. Fencing is sold for \$1.50 per foot at the garden store. Shawn needs 24 feet of fence for his new puppy's yard.
How much will the fence cost?
- A. \$9.00
- B. \$22.50
- C. \$25.50
- D. \$36.00
3. Mary and Chris work on a farm and earn more money each day.
How much money will each make on the next Wednesday?

	M	T	W	Th	F	M	T	W
Mary	\$3.00	\$6.00	\$9.00	\$12.00	\$15.00	\$18.00		
Chris	\$2.50	\$5.00	\$7.50	\$10.00	\$12.50	\$15.00		

- A. Mary \$63, Chris \$52.50
- B. Mary \$21, Chris \$17.50
- C. Mary \$24, Chris \$20.00
- D. Mary \$69, Chris \$62.50

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4. Evaluate $ab + 5c - d$

if $a = 3$, $b = 2$, $c = 7$, and $d = 4$

- A. 21
- B. 37
- C. 73
- D. 143

5. Which is the best estimate to the following problem:

$$25.346 \times 3.94 = \square$$

- A. 75
- B. 78
- C. 84
- D. 100

6. In a class of 24 students, $\frac{1}{3}$ of the class has brown eyes.

How many students have brown eyes?

- A. 3
- B. 4
- C. 6
- D. 8

7. There are 5 chips, numbered 1 through 5.

If one chip is selected at random, what is the probability it will have an even number on it?

- A. $\frac{1}{5}$
- B. $\frac{2}{5}$
- C. $\frac{1}{2}$
- D. $\frac{3}{4}$

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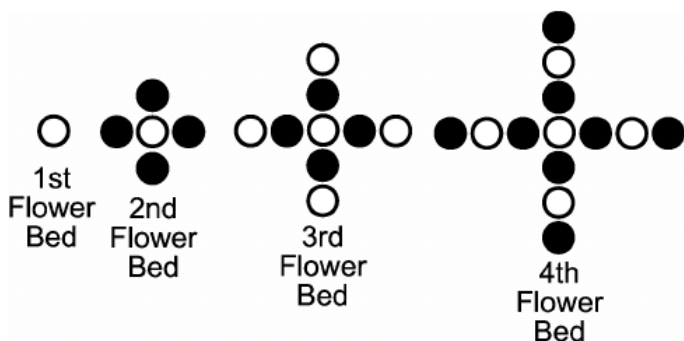
8. Debbie bought 3 bags of potato chips at \$3.19 each.
How much change will she get back from a \$20.00 bill?
- A. \$3.19
B. \$9.57
C. \$10.43
D. \$16.81
9. Marty earned \$4.50 an hour mowing lawns. He worked 5 hours a day, 4 days a week for 3 weeks.
How much money did he earn during this time?
- A. \$16.50
B. \$22.50
C. \$90.00
D. \$270.00
10. This math sentence represents the total number of cow legs in the cow pen. If you know that \square represents the number of cows and there are 12 cows in the pen, what does the Δ represent?
- $$\square \times \Delta = 48$$
- A. The amount of grain the cows eat.
B. How much milk each cow gives.
C. The number of legs on each cow.
D. The total number of legs in the pen.
11. Which of these expressions is equivalent to:
 $7(9 + 11)$
- A. $(7 \times 9) + (7 \times 11)$
B. $63 + 11$
C. $(7 + 9) \times (7 + 11)$
D. $16 + 18$
12. Two packages of cookies cost \$5.90.
How much do 6 packages cost?
- A. \$35.40
B. \$17.70
C. \$11.90
D. \$2.95

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13. Which fraction listed is between $\frac{4}{7}$ and $\frac{6}{7}$?
- A. $\frac{1}{2}$
 - B. $\frac{5}{9}$
 - C. $\frac{3}{5}$
 - D. $\frac{7}{8}$
14. A jar contains 5 blue, 3 red, and 7 white balls.
What is the approximate probability of drawing a blue or red ball on the first draw?
- A. 33%
 - B. 53%
 - C. 67%
 - D. 80%
15. Alex and Taylor are in separate rooms. Alex has 24 coins and Taylor has 18 coins. Each person knows how many coins the other has. Each boy is to put his coins into groups with the same number of coins in them. They will win the grand prize if the number of groups Alex has matches the number of groups Taylor has.
What is the greatest number of groups Alex could make and still have a chance at winning the grand prize?
- A. 2
 - B. 3
 - C. 6
 - D. 12

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16. Frank was planting a flower garden. In the first flower bed he put 1 white flower bulb. In the 2nd flower bed he put 1 white flower bulb surrounded by 4 purple flower bulbs. In the 3rd flower bed he copied his design from the 2nd flower bed, but added 4 white flower bulbs. In the 4th flower bed, he copied the 3rd flower bed, and added 4 more purple flower bulbs. How many total purple flower bulbs will Frank need for the 10th flower bed?



- A. 17
 B. 20
 C. 24
 D. 37
17. What power of 10 needs to be added to $\frac{10^6}{10^2}$ to get 100,010,000?
- A. 10^4
 B. 10^7
 C. 10^8
 D. 10^9
18. Sam plans to double his trading cards each month. He has 13 cards now. How many will he have at the end of 3 months?
- A. 39
 B. 52
 C. 78
 D. 104

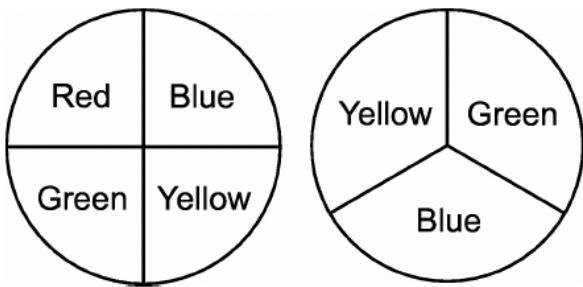
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19. A customer at a clothing store buys three pairs of socks at \$2.99 each, a pair of pants for \$53.49, and a shirt for \$24.99. The clerk includes a tax of 6%.

What was the customer's final total?

- A. \$5.25
- B. \$ 88.85
- C. \$ 92.70
- D. \$139.92

20. If Rob spins each spinner one time, what is the probability both will land on red?



- A. 0
- B. $\frac{1}{7}$
- C. $\frac{1}{4}$
- D. $\frac{1}{3}$

We are not able to provide a Raw-to-RIT chart as we had in the past. Many of the items were initially calibrated under the old standards for different grades, and these items do not cover all of the new standards. Since the item calibrations (RIT) are not accurate for the new standards, any attempt to convert a raw score to a RIT score would not be valid.

Item Number	Answer Key	Score Reporting Category	2007 Grade 6 Content Standard
1	B	6.2 : Number and Operations and Probability	6.2.3
2	D	6.1 : Number and Operations	6.1.3
3	C	6.3 : Algebra	6.3.5
4	B	6.3 : Algebra	6.3.3
5	D	6.1 : Number and Operations	6.1.1
6	D	6.1 : Number and Operations	6.1.2
7	B	6.2 : Number and Operations and Probability	6.2.4
8	C	6.1 : Number and Operations	6.1.3
9	D	6.1 : Number and Operations	6.1.4
10	C	6.3 : Algebra	6.3.2
11	A	6.1 : Number and Operations	6.1.6
12	B	6.2 : Number and Operations and Probability	6.2.1
13	C	6.2 : Number and Operations and Probability	6.2.2
14	B	6.2 : Number and Operations and Probability	6.2.4
15	C	6.3 : Algebra	6.3.4
16	B	6.3 : Algebra	6.3.5
17	C	6.3 : Algebra	6.3.1
18	D	6.3 : Algebra	6.3.5
19	C	6.2 : Number and Operations and Probability	6.2.1
20	A	6.2 : Number and Operations and Probability	6.2.4