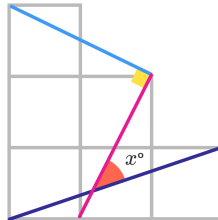


Name:

## Grade 7

Answer the questions you are confident in. Guess at your own risk.

- $-12\left(-\frac{3}{4}\right) + 42 * 4\left(\frac{1}{6}\right) =$ 
  - 25
  - 28
  - 37
  - 33
  - 19
- The digit sum of 998 is  $9 + 9 + 8 = 26$ . How many 3-digit whole numbers, with digit sum of 26, are even?
  - 1
  - 2
  - 3
  - 4
  - 5
- What is the measure of angle x?



- 25
  - 30
  - 45
  - 50
  - 55
- What is the difference between the greatest and least prime factors of 2,310?
    - 1
    - 3
    - 5
    - 8
    - 9
  - Doug was born Saturday, November 9, 2002. On what day of the week will Doug be 706 days old?
    - Monday
    - Wednesday
    - Friday
    - Saturday
    - Sunday

6. If 6 fair coins are flipped, what is the probability that there are more heads than tails?

- a.  $\frac{1}{2}$
- b.  $\frac{3}{8}$
- c.  $\frac{11}{32}$
- d.  $\frac{7}{16}$
- e.  $\frac{11}{16}$

7. The average of 5 people in a room is 30 years. An 18 year old leaves the room. What is the average of the remaining people?

- a. 25
- b. 26
- c. 29
- d. 33
- e. 36

8. Which fraction is the smallest?

- a.  $\frac{3}{5}$
- b.  $\frac{9}{14}$
- c.  $\frac{13}{20}$
- d.  $\frac{30}{51}$
- e.  $\frac{89}{153}$

9.  $1246.2 \div 0.3 =$

- a. 4.154
- b. 41.54
- c. 415.4
- d. 4154
- e. 41540

10.  $x + \frac{1}{x} = 5$ ,  $x^2 + \frac{1}{x^2} = ?$

- a. 26
- b. 25
- c. 24
- d. 23
- e. 22

11. What is the greatest common factor of 156, 192 and 288?

- a. 12
- b. 24
- c. 18
- d. 8
- e. 6

12. How many trailing zeros (zeros at the end of the number) are there in  $25!$ ?
- a. 3
  - b. 4
  - c. 5
  - d. 6
  - e. 7
13. What is the minimum possible product of three different numbers of the set  $\{-8, -6, -4, -2, 0, 1, 3, 5, 7\}$ ?
- a. -336
  - b. -280
  - c. -210
  - d. -192
  - e. 0
14. How many ways are there to arrange the letters in the word "GREEN" such that the two E's are not next to each other?
- a. 120
  - b. 90
  - c. 60
  - d. 45
  - e. 36
15. One half of the water is poured out of a full container. Then one third of the remainder is poured out. Continue the process: one fourth of the remainder for the third pouring, one fifth of the remainder for the fourth pouring, etc. After how many pouring does exactly one tenth of the water remain?
- a. 6
  - b. 7
  - c. 8
  - d. 9
  - e. 10
16. What is the units digit of  $20^{20} + 19^{19}$ ?
- a. 0
  - b. 1
  - c. 5
  - d. 7
  - e. 9

17. A rectangular prism has side length of three, width of four, and height of five. What is the longest distance between two points on the prism?
- $5\sqrt{2}$
  - $\sqrt{41}$
  - 5
  - $\sqrt{57}$
  - 10
18. You have nine coins: a collection of pennies, nickels, dimes and quarters having a total value of \$1.02, with at least one coin of each type. How many dimes must you have?
- 1
  - 2
  - 3
  - 4
  - 5
19. Let  $a$ ,  $b$ , and  $c$  be numbers with  $0 < a < b < c$ . Which of the following is impossible?
- $a + b < c$
  - $a * b < c$
  - $a + c < b$
  - $a * c < b$
  - $b / c = a$
20. There are 24 four-digit whole numbers that use each of the four digits 2,4,5, and 7 exactly once. Only one of these four-digit numbers is a multiple of another one. Which of the following is it?
- 7542
  - 7425
  - 7254
  - 7245
  - 5724