Grade 5 CROWN Math Competition

Multiple Choice & Free Response

1. What is the greatest common divisor (GCD) of 48 and 54?
   a) 6
   b) 8
   c) 12
   d) 24

2. What is the least common multiple (LCM) of 18 and 12?
   a) 24
   b) 36
   c) 48
   d) 96

3. What is the sum of the odd prime factors of 30?
   a) 8
   b) 10
   c) 12
   d) 15

4. Which of the following numbers is a prime number?
   a) 153
   b) 171
   c) 67
   d) 924

5. What is the smallest multiple of 7 greater than 5000?
   write your answer in the answer sheet

6. What number comes next in the sequence: 1, 4, 9, 16, 25, -----?

   write your answer in the answer sheet

7. If a book costs $12 and you buy 33 books, how much do you pay in total?
   a) $45
   b) $360
   c) $396
   d) $408

8. Which number is greater: 0.707 × 6 or 0.808 × 5?
   a) 0.707 × 6
   b) 0.808 × 5

   c) Both are equal
   d) Neither

9. What is the difference between 2.045 and 1.815?
   a) 3.86
   b) 1.83
   c) 0.20
   d) 0.23

10. If you divide 614 by 9, what is the remainder?
    write your answer in the answer sheet

11. What is the area of a rectangle with a length of $3\frac{4}{5}$ units and a width of $\frac{1}{4}$ units?

    (Express your answer as a fraction in simplest for)
    write your answer in the answer sheet

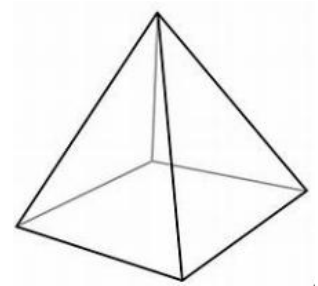12. What is the perimeter of a square with side length 12.65 units?

 a) 50.6 units

 b) 25.3 units

 c) 16.65 units

 d) 160.0225 units

13. How many degrees are in a straight angle?

 a) 90°

 b) 180°

 c) 360°

 d) 120°

14. How many edges does a square base pyramid have?

 a) 6

 b) 8

 c) 10

 d) 12

15. What is the volume of a cube with side length $2\frac{1}{3}$ units?

 a) 7 cubic units

 b) $\frac{49}{9}$ cubic units

 c) $\frac{343}{27}$ cubic units

 d) $\frac{4}{9}$ cubic units

16. It takes 10 days for 5 workers to build a wall. How many day(s) will it take for 2 workers to build the same wall?

write your answer in the answer sheet

17. Find the value of

Answer:

$$\dfrac{1}{5-\dfrac{3}{8+\dfrac{4}{2+\dfrac{1}{7}}}}$$

(Express your answer as a fraction in simplest for)

write your answer in the answer sheet

18. If you subtract twice 124 from 289, what is the result?
    a) 145
    b) 155
    c) 175
    d) 41

19. Choose 3 digits from 0, 2, 4, 6, 8 to form 3-digit even numbers greater than 400, without repetition. How many such number(s) is / are there?

    a) 48
    b) 120
    c) 36
    d) 33

20. What is 40% of 350?

     write your answer in the answer sheet

21. How many different ways can you arrange the letters in the word "WHAT"?

     a) 12

     b) 24

     c) 30

     d) 36

22. How many ways can you choose 3 out of 5 candies?

     a) 8

     b) 12

     c) 10

     d) 20

23. You have 7 types of fruit and 5 types of juice. How many different combinations of fruit and juice can you make?

     a) 2

     b) 12

     c) 28

     d) 35

24. A teacher gives some candies to students. If everyone gets 6 candies, 25 candies will be left. If everyone gets 4 candies, 45 candies will be left. How many candy(ies) does the teacher have?

     a) 10

     b) 85

     c) 45

     d) 191

25. Solve $2 - 3(x - 4) + 10 = 0$?

     a) 6

     b) 8

     c) 12

     d) 24

26. What is the perimeter of a right triangle with shorter sides of length 3 and 4 units?

   a) 12 units

   b) 24 units

   c) 22 units

   d) 18 units

27. What is the area of a circle with a radius of 20 units? (Use $\pi \approx 3.14$)

   a) 62.8 square units

   b) 314 square units

   c) 1256 square units

   d) 125.6 square units

28. If a car travels 50 miles per hour, how long will it take to travel 120 miles?

   a) 3 hours

   b) 2 hours 24 minutes

   c) 2 hours 30 minutes

   d) 2 hours 44 minutes

29. What is the value of 75% of 50% of 360?

   a) 135

   b) 100

   c) 180

   d) 45

30. 15 small cubes with side length 1 are combined. According to the pattern shown below, find the surface area.