1. Which of the following number has the smallest prime factor?

   (A) 2003 (B) 2005 (C) 2007 (D) 2009 (E) 2011

2. A group of first graders ride on bicycles and tricycles. If there are total 20 students and 45 wheels. How many bicycles are there?

   (A) 11 (B) 12 (C) 13 (D) 14 (E) 15

3. In the problem below, each letter stands for a different digit.

$$\begin{array}{cccc} & T & W & O \\ + & T & W & O \\ \hline F & O & U & R \end{array}$$

   If $T = 7$ and the letter O is an even number, what is the only possible value for W

   (A) 0 (B) 1 (C) 2 (D) 3 (E) 4

4. What is the measure of the acute angle formed by the hands (or hour and minute) of a clock at 5 : 20a.m.?

   (A) 36^o (B) 37^o (C) 38^o (D) 39^o (E) 40^o

5. What is the value of x in the equation $6^{x+1} - 6^x = 1080$?

   (A) 2 (B) 3 (C) 4 (D) 5 (E) None of the above

6. The area of trapezoid $ABCD$ with $AD||BC$ and $BC < AD$ is 244 cm^2. The altitude is 8 cm, AB is 10 cm, and CD is 17cm. What is BC, in centimeters?

   (A) 10 (B) 15 (C) 20 (D) 25 (E) 30

7. What is the positive difference between 120% of 30 and 130% of 20?

   (A) 9 (B) 10 (C) 11 (D) 12 (E) 13

8. For what value of a is there a right triangle with sides $a + 1$, $6a$ and $6a + 1$?

   (A)7 (B) 8 (C) 9 (D) 10 (E) 11

9. In the equation $w^3+x^3+y^3 = z^3$, w^3, x^3, y^3 and z^3 are distinct, consecutive positive perfect cubes listed in ascending order. What is the smallest possible value of z?

   (A)5 (B) 6 (C) 7 (D) 8 (E) None of the above

10. When rolling two standard six-sides dice, what is the probability of getting a sum larger than 10?

    (A)$\frac{1}{6}$ (B) $\frac{1}{8}$ (C) $\frac{1}{10}$ (D) $\frac{1}{12}$ (E) None of the above

11. What is the greatest prime factor of $12! + 14!$?

(A) 3 (B) 5 (C) 7 (D) 11 (E) None of the above

12. In how many zeros does the decimal representation of the number 2009! end?

(A) 498 (B) 499 (C) 500 (D) 501 (E) None of the above

13. A triangle with sides $3a - 1$, $a^2 + 1$ and $a^2 + 2$ has a perimeter of 16 units. What is the area (in square units)?

(A) 8 (B) 10 (C) 12 (D) 14 (E) 16

14. When is the time that after 5 : 00 a.m. the hands of the clock coincide exactly (here we view the hands as two lines)?

(A) 5 : 26 a.m. (B) 5 : 27 a.m. (C) 5 : 28 a.m. (D) 5 : 29 a.m. (E) None of the above

15. In a village the only currency is 7-cent and 11-cent coins. Some prices such as 42, can be paid with exact change, while others, like 5 or 20 cannot. How many prices can not be paid with exact change?

(A) 28 (B) 29 (C) 30 (D) 31 (E) None of the above