MATH 7 TEST 4

Name_____ Date_____

Directions: Complete as many problems as you can in the 30 minutes allotted to you. No calculators!

1. For 246,813.579275, what is the product of the ten thousands digit and the ten-thousandths digit?
(**A**) 4 (**B**) 8 (**C**) 12 (**D**) 28 (**E**) 36

2. What is the product of the two smallest prime numbers larger than 47?
(**A**) 2,703 (**B**) 2,907 (**C**) 2,915 (**D**) 3,021 (**E**) 3,127

3. What is the prime factorization of 3,000?
(**A**) $2^3 \times 5^3 \times 3$ (**B**) $2^3 \times 5^2 \times 3$ (**C**) $2^3 \times 5^4 \times 3$ (**D**) $2^4 \times 5^3 \times 3$ (**E**) $2^4 \times 5^4 \times 3$

4. Which of the following has the smallest divisor?
(**A**) $8\frac{17}{29} \div 4\frac{15}{23}$ (**B**) $8\frac{17}{28} \div 4\frac{15}{22}$ (**C**) $8\frac{17}{31} \div 4\frac{15}{19}$ (**D**) $8\frac{17}{26} \div 4\frac{15}{28}$ (**E**) $8\frac{17}{25} \div 4\frac{15}{26}$

5. During the first hour of school, one-twelfth of the students got their picture taken. If three-sixteenths of the students got their picture taken for each of the next three hours, what fraction of the students still need their picture taken?
(**A**) $\frac{6}{7}$ (**B**) $\frac{13}{16}$ (**C**) $\frac{17}{48}$ (**D**) $\frac{31}{48}$ (**E**) $\frac{35}{48}$

6. Which of the following is true?

I. 28.2% II. 0.2813 III. $\frac{9}{32}$

(**A**) II > I > III (**B**) I > II > III (**C**) III > I > II (**D**) II > III > I (**E**) III > II > I

7. Which quantity is the smallest?
(**A**) $\frac{11}{40} + \frac{7}{40}$ (**B**) $\frac{9}{20} \times 1.001$ (**C**) $\frac{9}{20} \times \frac{838}{837}$ (**D**) $\frac{9}{20} \div \frac{7}{6}$ (**E**) 0.46

8. Which of the following is the greatest?
(**A**) 0.000008×10^7 (**B**) $800 \div 10^3$ (**C**) 0.008×10^2 (**D**) $80{,}000 \div 10^4$ (**E**) 0.00008×10^3

9. It rained 180 days out of the last 1,050 days. What fraction of the 1,050 days did it not rain?
(**A**) $\frac{6}{35}$ (**B**) $\frac{8}{35}$ (**C**) $\frac{5}{7}$ (**D**) $\frac{27}{35}$ (**E**) $\frac{29}{35}$

10. The area of a square is 36 square feet. Find the perimeter in inches.
(**A**) 24 (**B**) 288 (**C**) 320 (**D**) 360 (**E**) 436

11. If Bob can stuff 90 envelopes every half hour and Bill can stuff 2 envelopes every minute, how much longer will it take Bill to stuff 180 envelopes than Bob?
(**A**) 20 minutes (**B**) 30 minutes (**C**) 40 minutes (**D**) 45 minutes (**E**) 60 minutes

12. Which of the following has the greatest value?
(**A**) $2\frac{2}{3} + 2\frac{2}{3} + 2\frac{2}{3} + 2\frac{2}{3}$ (**B**) $\left(3 \times 2\frac{2}{3}\right) + 2\frac{1}{2}$ (**C**) $\left(2 \times 2\frac{2}{3}\right) + \left(2 \times 2\frac{1}{2}\right)$
(**D**) $\left(6 \times 2\frac{2}{3}\right) - \left(2 \times 2\frac{3}{4}\right)$ (**E**) $\left(5 \times 2\frac{2}{3}\right) - 2\frac{1}{2}$

13. Which of the following is the smallest difference?

(**A**) $47.5-(12.6-5.77)$ (**B**) $47.4-(12.6-5.77)$ (**C**) $47.3-(12.6-5.77)$

(**D**) $47.3-(12.6-5.76)$ (**E**) $47.3-(12.6-5.75)$

14. The amount of rain this month was 800,000 % of what it was last month. If it rained 0.0016 inches this month, how much did it rain last month?

(**A**) 0.0000002 (**B**) 0.000002 (**C**) 0.0002 (**D**) 1.28 (**E**) 128

15. Four less than twice the sum of the number of boys and girls is 18. If there are 4 girls, how many boys are there?

(**A**) 4 (**B**) 7 (**C**) 9 (**D**) 11 (**E**) 13

16. A trapezoid has an area of 66 and a height of 12. Which of the following could not be the two bases?

(**A**) 6 and 5 (**B**) 10 and 2 (**C**) 8 and 3 (**D**) 7 and 4 (**E**) 9.5 and 1.5

17. $10^5+10^3+10^2+10=$

(**A**) 101,110 (**B**) 11,110 (**C**) 1,001,110 (**D**) 110,110 (**E**) 110,010

18. If the area of a triangle is 160 square feet, find the value of $\frac{b\times h}{8}$ in square feet where *b* is the base and *h* is the height.

(**A**) 20 (**B**) 30 (**C**) 40 (**D**) 60 (**E**) 80

19. Find the area of a parallelogram if the perimeter is 80 and the base is 10. Assume the parallelogram is a rectangle.

(**A**) 40 (**B**) 200 (**C**) 280 (**D**) 300 (**E**) 400

20. The circumference of one circle is 16π and the diameter of another circle is 10. Find the sum of the two areas?

(**A**) 13π (**B**) 26π (**C**) 38π (**D**) 41π (**E**) 89π

21. Evaluate $w+t\div v\times p$ if $w=2$, $t=24$, $v=2$, and $p=6$

(**A**) 4 (**B**) 74 (**C**) 78 (**D**) 80 (**E**) 84

22. The supplement of an angle is 4 times the complement of the angle. Find the supplement of the angle.

(**A**) 30° (**B**) 45° (**C**) 60° (**D**) 120° (**E**) 150°

23. Simplify $\frac{(5.6-3.77)+(5.6-3.77)+(5.6-3.77)}{3}$.

(**A**) 1.83 (**B**) 1.87 (**C**) 1.93 (**D**) 2.83 (**E**) 2.87

24. Find the value of $\frac{3}{8}-\frac{1}{a+b}+\frac{1}{4}$ if $a+b=16$.

(**A**) $\frac{1}{16}$ (**B**) $\frac{3}{28}$ (**C**) $\frac{9}{16}$ (**D**) $\frac{17}{32}$ (**E**) $\frac{19}{32}$

25. A project can be completed by 20 workers each working 4 hours per day for 9 days. If you want to complete 3 projects in 12 days, how many workers would you need if each worker works 5 hours per day?

(**A**) 24 (**B**) 26 (**C**) 28 (**D**) 32 (**E**) 36

MATH 7 TEST 4 ANSWERS

1. B	2. E	3. A	4. D	5. C
6. B	7. D	8. A	9. E	10. B
11. B	12. E	13. E	14. A	15. B
16. B	17. A	18. C	19. D	20. E
21. B	22. D	23. A	24. C	25. E

1. $4 \times 2 = 8$
2. $53 \cdot 59 = 3127$
3. $2^3 \times 5^3 \times 3$
4. $8\frac{17}{26} \div 4\frac{15}{28}$
5. $\frac{48}{48} - \frac{31}{48} = \frac{17}{48}$
6. I > II > III
7. $\frac{9}{20} \div \frac{7}{6}$
8. 0.000008×10^7
9. $\frac{87}{105} = \frac{29}{35}$
10. $6.4 \cdot 12 = 288$
11. If Bob can do 90 envelopes in 30 minutes, then he can do 180 envelopes in 60 minutes. Bill can do 180 envelopes in $180 \div 2 = 90$ minutes. Therefore it would take Bill 30 minutes longer.
12. $\left(5 \times 2\frac{2}{3}\right) - 2\frac{1}{2}$
13. E has the largest subtrahend and will be the smallest.
14. 0.0000002
15. B = 7
16. $b_1 + b_2 = 11 \rightarrow$ B
17. 101,110
18. $bh = 320 \rightarrow \frac{bh}{8} = 40$
19. $30 \cdot 10 = 300$
20. $64\pi + 25\pi = 89\pi$
21. 2 + 72 = 74
22. 180 – 60 = 120
23. 5.6 – 3.77 = 1.83
24. $\frac{6}{16} - \frac{1}{16} + \frac{4}{16} = \frac{9}{16}$
25. $2160 \div 60 = 36$