

# MATH 7 TEST 1

Name \_\_\_\_\_

Date \_\_\_\_\_

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

- Round  $\overline{6.646}$  to the nearest hundred-thousandths place.  
 (A) 6.6466 (B) 6.64665 (C) 6.64646 (D) 6.646464 (E) 6.646647
- Which has the greatest sum?  
 (A)  $4,789 + 6,594 + 5,874$  (B)  $4,785 + 6,588 + 5,882$  (C)  $4,789 + 6,595 + 5,873$   
 (D)  $4,787 + 6,599 + 5,872$  (E)  $4,785 + 6,598 + 5,873$
- Which fraction is not equivalent to  $\frac{5}{8}$ ?  
 (A)  $\frac{35}{56}$  (B)  $\frac{40}{64}$  (C)  $\frac{45}{72}$  (D)  $\frac{50}{80}$  (E)  $\frac{60}{98}$
- Which statement is the greatest difference?  
 (A)  $15,987 - (8,763 + 5,899)$  (B)  $15,987 - (8,763 + 5,900)$  (C)  $15,987 - (8,763 + 5,901)$   
 (D)  $15,987 - (8,763 + 5,902)$  (E)  $15,987 - (8,763 + 5,903)$
- What is the product of the two smallest composite numbers greater than 37?  
 (A) 1,482 (B) 1,520 (C) 1,599 (D) 1,680 (E) 1,763
- Which of the following is the largest?  
 (A)  $24\frac{3}{4} \div \left(5\frac{7}{13} \div 2\frac{6}{19}\right)$  (B)  $24\frac{3}{4} \div \left(5\frac{6}{13} \div 2\frac{6}{19}\right)$  (C)  $24\frac{3}{4} \div \left(5\frac{5}{13} \div 2\frac{6}{19}\right)$   
 (D)  $24\frac{3}{4} \div \left(5\frac{5}{13} \div 2\frac{5}{19}\right)$  (E)  $24\frac{3}{4} \div \left(5\frac{5}{13} \div 2\frac{4}{19}\right)$
- How many more quarts are in 20 gallons than 24 pints?  
 (A) 8 (B) 24 (C) 32 (D) 68 (E) 72
- How much greater is  $(4 \times 10,000) + (0 \times 1,000) + (4 \times 100) + (0 \times 10) + (1 \times 1) + \left(0 \times \frac{1}{10}\right) + \left(2 \times \frac{1}{100}\right)$   
 than  $(7 \times 1,000) + (0 \times 100) + (0 \times 10) + (9 \times 1) + \left(6 \times \frac{1}{10}\right) + \left(0 \times \frac{1}{100}\right) + \left(8 \times \frac{1}{1,000}\right)$ ?  
 (A) 33,391.412 (B) 33,391.428 (C) 33,392.312 (D) 33,401.412 (E) 33,401.428
- Which will produce the smallest remainder?  
 (A)  $12,308 \div 47$  (B)  $12,310 \div 47$  (C)  $12,312 \div 47$  (D)  $12,314 \div 47$  (E)  $12,316 \div 47$
- What is the difference between three hundred two and seventeen hundredths, and thirty-nine and eight hundred fifty-eight thousandths?  
 (A) 262.312 (B) 262.328 (C) 263.312 (D) 263.328 (E) 362.312
- For 43,265.1234, what is the product of the digit that is in the thousandths place with the digit that is in the thousands place?  
 (A) 6 (B) 8 (C) 9 (D) 12 (E) 16
- Which of the following numbers is not divisible by 9?  
 (A) 185,328 (B) 264,735 (C) 573,192 (D) 426,843 (E) 371,856

13. Which of the following numbers are divisible by 4 and 6?  
 (A) 6,224 (B) 7,436 (C) 9,792 (D) 6,004 (E) 4,006
14. On a map,  $\frac{1}{4}$  of an inch represents 500 miles and two cities are 1400 miles apart. How far apart are the two cities on the map?  
 (A) 0.4 inches (B) 0.5 inches (C) 0.6 inches (D) 0.7 inches (E) 0.8 inches
15. What is the next number in the following sequence? 8.86; 7.2; 5.54; \_\_\_\_\_  
 (A) 3.78 (B) 3.88 (C) 3.98 (D) 4.88 (E) 4.98
16. A clock is malfunctioning such that the minute hand moves 40 minutes every hour. If you set the clock at the correct time of 10:00 a.m., what time will the clock read when the actual time is 7:00 p.m. of the same day?  
 (A) 2:40 p.m. (B) 3:20 p.m. (C) 4:00 p.m. (D) 4:40 p.m. (E) 6:00 p.m.
17. Simplify  $3^3 - 2^2 + 2$ .  
 (A) 3 (B) 7 (C) 21 (D) 23 (E) 25
18. Simplify  $36 - 24 \div 4 \times 2 + 1$ .  
 (A) 7 (B) 23 (C) 25 (D) 31 (E) 33
19. A square shaped backyard contains a circular pool with a diameter of 20 feet. The area of the yard not covered by the pool is 2,186 square feet. Find the width of the yard in feet. Use 3.14 for  $\pi$ .  
 (A) 40 (B) 50 (C) 60 (D) 70 (E) 80
20. What fraction has the largest value?  
 (A)  $\frac{347}{711}$  (B)  $\frac{347}{710}$  (C)  $\frac{347}{709}$  (D)  $\frac{346}{710}$  (E)  $\frac{345}{720}$
21. If 2 gallons of paint covers 120 square yards, then 3 quarts of paint will cover how many square feet?  
 (A) 360 (B) 380 (C) 390 (D) 400 (E) 405
22. Eighty thousand eighty and eighty-one ten-millionths can be written which of the following ways?  
 (A) 80,008.000081 (B) 80,080.0000081 (C) 80,080.00000081 (D) 8,080.0000081 (E) 8,080.00000081
23. If it took you 14 hours and 54.37 minutes to complete the project and it took your brother 18 hours and 1.2 minutes to complete his, how much longer did your brother work than you?  
 (A) 3 hours and 6.83 minutes (B) 3 hours and 6.97 minutes (C) 3 hours and 7.83 minutes  
 (D) 3 hours and 16.83 minutes (E) 3 hours and 46.83 minutes
24. If one cubic centimeter equals one milliliter, then 6.8 dekaliters equals how many cubic centimeters? One dekaliter equals 10 liters.  
 (A) 68 (B) 680 (C) 6,800 (D) 68,000 (E) 680,000
25. If the dimensions of one room are 12ft x 12ft x 8ft, and the dimensions of a second room are 18ft x 18ft x 24ft, what is the ratio of the volume of the second room to the volume of the first room?  
 (A)  $\frac{4}{27}$  (B)  $\frac{27}{4}$  (C)  $\frac{27}{8}$  (D)  $\frac{8}{27}$  (E)  $\frac{27}{5}$

# MATH 7 TEST 1 ANSWERS

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

1. 6.64665

2. When comparing choices A and D, the first addend of A is 2 larger than the first addend of D, the second is 5 less, and the third is 2 larger. Therefore choice A is eliminated. When comparing choices B and E, the second addend of E is 10 larger but the third addend is 9 smaller. Therefore B is eliminated. When comparing D and E, the first addend of D is 2 greater, the second addend is 1 greater, and the third addend is 1 smaller. Therefore E is eliminated. When comparing C and D, the first addend of C is 2 larger, the second addend is 4 smaller, and the third addend is 1 larger. Therefore D is the largest.

3.  $\frac{60 \div 2}{98 \div 2} = \frac{30}{49}$

4. The minuends all have the same value. The greatest difference will have the smallest subtrahend. Choice A will have the smallest subtrahend.

5.  $38 \times 39 = 1482$

6. one with the smallest denominator. Therefore C.

7.  $80 - 12 = 68$

8.  $40,401.02 - 7,009.608 = 33,391.412$

9.  $12,314 \div 47$  has a remainder of 0.

10.  $302.17 - 39.858 = 262.312$

11.  $3 \times 3 = 9$

12. E

13. 9,792

14.  $\frac{350}{500} = 0.7$

15.  $5.54 - 1.66 = 3.88$

16.  $10:00 + \left(\frac{2}{3} \times 9\right) = 10:00 + 6 = 4:00 \text{ p.m.}$

17.  $27 - 4 + 2 = 25$

18.  $36 - 12 + 1 = 25$

19.  $2186 + 314 = 2500 = 50 \times 50$

20.  $\frac{347}{709}$

21.  $\frac{120 \cdot 3 \cdot 9}{8} = 405$

22. 80,080.0000081

23.  $17 \text{ hrs. } 61.2 \text{ min.} - 14 \text{ hrs. } 54.37 \text{ min.} = 3 \text{ hrs. } 6.83 \text{ min.}$

24.  $6.8 \cdot 10000 = 68000$

25.  $\frac{18 \times 18 \times 24}{12 \times 12 \times 8} = \frac{3 \times 3 \times 3}{2 \times 2} = \frac{27}{4}$