

MATH 6 TEST 2

Name _____ Date _____

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

1. Which is the shortest time?
(A) 2 years (B) 106 weeks (C) 2×370 days (D) 25 months (E) 103 weeks + 3 days
2. If your brother is 6 feet 3 inches tall and you are 4 feet 8 inches tall, how much taller is your brother than you?
(A) 18 inches (B) 19 inches (C) 20 inches (D) 21 inches (E) 22 inches
3. Blake bought a 3 year old car. If Julian's car is 3 years older than Blake's car and 4 years older than Patrick's, how old is Patrick's car?
(A) 2 years (B) 4 years (C) 6 years (D) 8 years (E) 10 years
4. Which of the following is divisible by 3?
(A) 409 (B) 7,006 (C) 833 (D) 500,003 (E) 20,001
5. You have $6\frac{1}{5}$ rolls of pennies and your brother has $2\frac{4}{5}$ rolls of pennies. If a full roll contains 50 pennies, how many total pennies do you and your brother have?
(A) 350 (B) 400 (C) 450 (D) 460 (E) 500
6. Which of the following has the greatest value?
(A) $798 + 798 + 798$ (B) 3×799 (C) $(2 \times 798) + 799$ (D) $(4 \times 798) - 799$ (E) $(5 \times 798) - (2 \times 797)$
7. Which is the fastest?
(A) 1 mile every 15 seconds (B) 3 miles every minute (C) 230 miles every hour
(D) 70 miles every 20 minutes (E) 110 miles every 30 minutes
8. Which is the least amount of money?
(A) 649 quarters, 784 dimes, 573 nickels (B) 648 quarters, 787 dimes, 573 nickels
(C) 648 quarters, 787 dimes, 574 nickels (D) 648 quarters, 788 dimes, 574 nickels
(E) 647 quarters, 788 dimes, 574 nickels
9. If it is September 2nd, what day was it 120 hours ago? The month of August contains 31 days.
(A) August 27 (B) August 28 (C) August 29 (D) August 30 (E) August 31
10. If it is 1:03 pm, what time was it 288 minutes ago?
(A) 9:51 am (B) 9:15 am (C) 8:51 am (D) 8:48 am (E) 8:15 am
11. After changing each fraction to a mixed number which contains a proper fraction, which fraction will have the largest numerator?
(A) $\frac{3674}{9}$ (B) $\frac{3676}{9}$ (C) $\frac{3678}{9}$ (D) $\frac{3680}{9}$ (E) $\frac{3682}{9}$
12. The width of your rectangular pool is 12 ft. and the perimeter is 56 ft. What is the length of your pool?
(A) 16 ft. (B) 18 ft. (C) 24 ft. (D) 32 ft. (E) 44 ft.
13. Which has the smallest sum?
(A) $354\frac{11}{18} + 289\frac{7}{18}$ (B) $354\frac{13}{18} + 289\frac{6}{18}$ (C) $354\frac{12}{18} + 289\frac{8}{18}$ (D) $354\frac{16}{18} + 289\frac{1}{18}$ (E) $354\frac{15}{18} + 289\frac{6}{18}$

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14. Which fraction is equivalent to $\frac{3}{7}$?
- (A) $\frac{16}{42}$ (B) $\frac{24}{54}$ (C) $\frac{33}{77}$ (D) $\frac{28}{63}$ (E) $\frac{36}{94}$
15. Which fraction has the smallest value?
- (A) $\frac{263}{117}$ (B) $\frac{263}{116}$ (C) $\frac{263}{115}$ (D) $\frac{264}{117}$ (E) $\frac{265}{117}$
16. Which is not an equivalent fraction?
- (A) $\frac{21}{35}$ (B) $\frac{36}{60}$ (C) $\frac{33}{55}$ (D) $\frac{45}{80}$ (E) $\frac{42}{70}$
17. Write 2.5 % as a fraction.
- (A) $\frac{1}{40}$ (B) $\frac{1}{42}$ (C) $\frac{1}{44}$ (D) $\frac{1}{46}$ (E) $\frac{1}{400}$
18. What number does $(5 \times 10,000) + (0 \times 1,000) + (7 \times 100) + (0 \times 10) + (4 \times 1)$ equal?
- (A) 5,704 (B) 50,074 (C) 50,704 (D) 50,740 (E) 57,004
19. If you have a rope that is $16\frac{1}{7}$ feet long and you chop off $8\frac{1}{6}$ feet, now how long is the rope in feet?
- (A) $7\frac{1}{42}$ (B) $7\frac{41}{42}$ (C) 8 (D) $8\frac{1}{42}$ (E) $8\frac{41}{42}$
20. Which will produce the largest quotient?
- (A) $6\frac{7}{13} \div 3\frac{7}{12}$ (B) $6\frac{7}{13} \div 3\frac{5}{12}$ (C) $6\frac{7}{13} \div 3\frac{11}{12}$ (D) $6\frac{7}{13} \div 3\frac{1}{12}$ (E) $6\frac{7}{13} \div 3\frac{1}{13}$
21. Which set of fractions are decreasing in value from left to right?
- (A) $\frac{5}{21}, \frac{11}{42}, \frac{3}{14}$ (B) $\frac{3}{14}, \frac{11}{42}, \frac{5}{21}$ (C) $\frac{3}{14}, \frac{5}{21}, \frac{11}{42}$ (D) $\frac{11}{42}, \frac{5}{21}, \frac{3}{14}$ (E) $\frac{11}{42}, \frac{3}{14}, \frac{5}{21}$
22. If you bought 13.2 gallons of gas at \$2.05 per gallon, how much did you pay?
- (A) \$26.96 (B) \$27.05 (C) \$27.06 (D) \$27.10 (E) \$33.00
23. If $\frac{1}{6}$ of the dogs was white and $\frac{1}{5}$ was black, what fraction of the dogs was a different color?
- (A) $\frac{2}{11}$ (B) $\frac{9}{11}$ (C) $\frac{9}{30}$ (D) $\frac{11}{30}$ (E) $\frac{19}{30}$
24. What is the difference between $8\frac{3}{5}$ minutes and $2\frac{2}{3}$ minutes in seconds?
- (A) $5\frac{14}{15}$ (B) $6\frac{1}{2}$ (C) 356 (D) 390 (E) 416
25. Which fraction is equivalent to 174.1875?
- (A) $174\frac{3}{16}$ (B) $174\frac{5}{32}$ (C) $174\frac{11}{48}$ (D) $174\frac{1}{8}$ (E) $174\frac{4}{25}$

MATH 6 TEST 2 ANSWERS

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

1. Choice A = 2 years = $52 \times 2 = 104$ weeks. Therefore B is eliminated. Choice C is greater than 2×365 days, which means C is greater than 2 years and is eliminated. Choice D is greater than 2×12 months, which means D is greater than 2 years and is eliminated. Choice E is about 4 days less day than choice A. Therefore E is the shortest amount of time.

2. 6 ft. 3 in. = 5ft. 15in. and 5ft. 15in. - 4ft. 8 in. = 1 ft. 7 in. = 12in. + 7 in. = 19 in.

3. If Julian's car is 3 years older than Blake's, then Julian's car is 6 years old. If Julian's car is 4 years older than Patrick's, then Patrick's car is 2 years old.

4. 20,001 because $2 + 1$ is divisible by 3.

$$5. \left(6\frac{1}{5} + 2\frac{4}{5}\right) \times 50 = 9 \times 50 = 450$$

6. Choice B simplifies to $799 + 799 + 799$ which is greater than choice A. C can be written as $798 + 798 + 799$ which is less than B. D can be thought of as $798 + 798 + 798 - 1$ which will be less than B. Choice E can be thought of as $798 + 798 + 798 + 1 + 1$ which is less than B.

7. Choice A = 1 mile every 15 seconds = 4 miles every minute = 240 miles every hour. Therefore B and C are eliminated. Choice D = 70×3 or 210 miles every hour which is less than A. Choice E = $110 \times 2 = 220$ miles every hour which is less than A.

8. Choice A has 1 more quarter than B but 3 less dimes. Therefore B is eliminated. Choice C has one more nickel than B, thus C is eliminated. Choice D has one more dime than C, thus D is eliminated. When comparing choice A and E, A has 2 more quarters, 4 less dimes, and 1 less nickel. Therefore $50 - 40 - 5 = 5$ which means choice E is the least amount of money.

9. $120 \div 24 = 5$ days which will be August 28th.

10. 288 minutes equals 4 hours 48 minutes. 1:03 - 4 hours 48 minutes equals 8:15 AM.

11. Choice A will have a remainder of 2. Since the numerators increase by 2 for each choice, B will have a remainder of 4 and C will have a remainder of 6. Choice D will have a remainder of 8. Choice E will have a remainder of 10, but another 9 can be taken out leaving a remainder of 1. Therefore D.

12. Width plus length equals half of the perimeter or 28 ft. Therefore $12 + \text{length} = 28$ and length = 16.

13. Each choice has the same whole numbers which means they can be ignored. Choice D = $\frac{16}{18} + \frac{1}{18} = \frac{17}{18}$, which will be the smallest.

$$14. \frac{33 \div 11}{77 \div 11} = \frac{3}{7}$$

15. The first three choice have the same numerator. Therefore the smallest fraction will have the largest denominator, thus eliminating B and C. A, D, and E have the same denominator. Therefore the smallest fraction will have the smallest numerator. Therefore A is the smallest fraction.

16. $\frac{45}{80}$ is the only choice that does not reduce to $\frac{3}{5}$

$$17. 2.5\% = 0.025 = \frac{25}{1000} = \frac{1}{40}$$

18. 50,704

$$19. 16\frac{1}{7} - 8\frac{1}{6} = 15\frac{8}{7} - 8\frac{1}{6} = 15\frac{48}{42} - 8\frac{7}{42} = 7\frac{41}{42}$$

20. All of the choices have the same dividend. Therefore the smallest divisor will produce the largest quotient, which is choice E.

$$21. \frac{11}{42}, \frac{5}{21}, \frac{3}{14} \rightarrow \frac{11}{42}, \frac{10}{42}, \frac{9}{42} = \text{choice D} \quad 22. 13.2 \times 2.05 = \$27.06 \quad 23. 1 - \left(\frac{1}{6} + \frac{1}{5}\right) = 1 - \left(\frac{5}{30} + \frac{6}{30}\right) = \frac{30}{30} - \frac{11}{30} = \frac{19}{30}$$

$$24. 8\frac{3}{5} \text{ minutes equals } 480 \text{ seconds plus } \left(\frac{3}{5} \times 60\right) \text{ seconds} = 480 + 36 = 516$$

$$2\frac{2}{3} \text{ minutes equals } 120 \text{ seconds plus } \left(\frac{2}{3} \times 60\right) \text{ seconds} = 120 + 40 = 160. \text{ Therefore } 516 - 160 = 356 \text{ seconds}$$

$$25. 0.1875 = \frac{1875}{10,000} = \frac{3}{16}$$