

Name _____ Date _____ Score _____

School _____ Grade _____

2010 MathEdge Speed Math Contest

Intermediate Level

NO calculators

INSTRUCTIONS

- Time limit: **12 minutes**
- You **may NOT use calculators** on this test.
- Some multiple-choice questions do not have the correct answer as one of the choices. On those questions, the response is e) not given
i.e. $3 + 4 =$ a) 4 b) 5 c) 6 d) 8 e) Not given
- If a division problem has a remainder (for instance $21 \div 5 = ??$), the answer is in this form: **4 r 1**
- All fractions are expressed in lowest terms.
- All answers that are improper fractions are written as mixed numerals or whole numbers.

i.e. $\frac{4}{2}$ should be written as 2

$\frac{7}{3}$ should be written as $2\frac{1}{3}$

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1. $11 \times 8 =$ a) 68 b) 88 c) 98 d) 108 e) not given
 2. $123 + 25 =$ a) 142 b) 145 c) 146 d) 148 e) not given
 3. $50 - 15 =$ a) 25 b) 30 c) 35 d) 40 e) not given
 4. $47 \div 8 =$ a) 6 r 1 b) 6 c) 5 r 7 d) 5 r 6 e) not given
 5. $34 + 78 =$ a) 112 b) 118 c) 120 d) 122 e) not given
 6. $72 + 175 + 25 =$ a) 172 b) 225 c) 252 d) 272 e) not given
 7. $40 + 67 + 360 =$ a) 464 b) 467 c) 474 d) 477 e) not given
 8. $\$3.17 + \$5.99 =$ a) \$8.16 b) \$8.17 c) \$9.16 d) \$4.17 e) not given
 9. $56 + 36 + 24 + 20 =$ a) 124 b) 136 c) 144 d) 146 e) not given
 10. $349 + 291 =$ a) 620 b) 610 c) 530 d) 540 e) not given
 11. $1,000 - 829 =$ a) 181 b) 171 c) 161 d) 121 e) not given
 12. $51.6 - 19.5 =$ a) 48.1 b) 42.9 c) 32.1 d) 28.9 e) not given
 13. $31 \frac{1}{2} - 16 \frac{2}{5} =$ a) $15 \frac{1}{10}$ b) $15 \frac{1}{3}$ c) $14 \frac{3}{5}$ d) $16 \frac{2}{5}$ e) not given
 14. $672 - 473 =$ a) 209 b) 199 c) 198 d) 188 e) not given
 15. $(\frac{1}{2})(\frac{1}{2}) =$ a) 0 b) $\frac{1}{2}$ c) 1 d) $\frac{1}{4}$ e) not given
 16. $3 + (12)(2) - 1 =$ a) 25 b) 26 c) 29 d) 14 e) not given

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17. $410 \times 20 =$ a) 82 b) 820 c) 8,200 d) 82,000 e) not given
18. $25 \times 12 =$ a) 200 b) 300 c) 400 d) 500 e) not given
19. $120 \times 1200 =$ a) 144 b) 1,440 c) 14,400 d) 144,000 e) not given
20. $82 - 5 \times 5 =$ a) 425 b) 385 c) 57 d) 107 e) not given
21. $814 \div 7 =$ a) 102 b) 115 r 6 c) 116 r 2 d) 120 r 3 e) not given
22. $65 \div 9 =$ a) 6 b) 6 r 1 c) 7 r 2 d) 8 r 1 e) not given
23. Apples sell for 2 for \$1.20. How much change do you have left from \$5 if you purchase 5 of them?
a) \$1.40 b) \$2.00 c) \$2.40 d) \$2.60 e) not given
24. What is the cost of this outfit? shoes: \$32.50, shirt: \$18.25, jeans: \$28
a) \$68.50 b) \$75.75 c) \$78.50 d) \$78.75 e) not given
25. How many different ways can 3 letters be rearranged, such as C A T?
a) 1 b) 3 c) 6 d) 8 e) not given
26. How many different outfits could you wear if you had 2 pair of shoes, 3 shirts, 2 sweatshirts, and 4 pair of jeans?
a) 11 b) 13 c) 36 d) 48 e) not given

For questions #27-31 choose the closest estimate to the answer for each problem.

27. $598 \times 602 =$ a) 360 b) 3,600 c) 36,000 d) 360,000 e) 3,600,000
28. $\frac{19}{10} + \frac{35}{36} + \frac{8}{7} =$ a) $\frac{1}{2}$ b) 1 c) 2 d) 3 e) 4
29. $0.5 \times 148.9843 =$ a) 79 b) 75 c) 70 d) 48 e) 700
30. $135 \overline{)694}$ a) 4 b) 5 c) 31 d) 51 e) 61
31. $19,482 + 518 =$ a) 21,000 b) 20,000 c) 20,500 d) 19,900 e) 19,000

#32-35: Write the next number in the sequence:

32. 2, 5, 8, 11, ... a) 19 b) 16 c) 15 d) 14 e) not given
33. 1000, 500, 250, ... a) 200 b) 125 c) 150 d) 100 e) not given
34. 1, 4, 9, 16, ... a) 19 b) 23 c) 25 d) 36 e) not given
35. 65, 58, 51, 44, ... a) 37 b) 38 c) 39 d) 40 e) not given

For questions #36-48, there are four problems that have been worked. One of the problems on each question has an incorrect answer. Identify the problem that has the incorrect answer. *Hint:* Use estimation to quickly **identify the incorrect answer.**

36. a)
$$\begin{array}{r} 913,420 \\ 123,887 \\ + 537,922 \\ \hline 1,575,239 \end{array}$$
 b)
$$\begin{array}{r} 71,962 \\ - 42,678 \\ \hline 29,284 \end{array}$$
 c)
$$\begin{array}{r} 67 \\ \times 49 \\ \hline 3,283 \end{array}$$
 d) $148 \div 6 = 24 \text{ r } 4$ e) not given

37. a)
$$\begin{array}{r} 49,493 \\ + 79,412 \\ \hline 128,905 \end{array}$$
 b)
$$\begin{array}{r} 150,090 \\ - 133,588 \\ \hline 16,502 \end{array}$$
 c)
$$\begin{array}{r} 52 \\ \times 52 \\ \hline 2764 \end{array}$$
 d) $120 \div 5 = 24$ e) not given

38. a)
$$\begin{array}{r} 89,895 \\ + 911,103 \\ \hline 1,000,998 \end{array}$$
 b)
$$\begin{array}{r} 90,230 \\ - 89,952 \\ \hline 278 \end{array}$$
 c)
$$\begin{array}{r} 399 \\ \times 5 \\ \hline 1995 \end{array}$$
 d) $242 \div 3 = 80$ e) not given

39. $5\frac{1}{2} + 8\frac{3}{4} + \frac{7}{8} =$

- a) $13\frac{1}{2}$ b) $13\frac{11}{14}$ c) $15\frac{1}{8}$ d) $14\frac{3}{8}$ e) not given

40. If you want an A in class, you must average 90%. If your first 3 test scores were 88, 92, and 81, what must your 4th test score be?

- a) 91 b) 93 c) 95 d) 99 e) not given

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ANSWER

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|-----|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|-----|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| 1. | a | <input checked="" type="radio"/> | c | d | e | 21. | a | b | <input checked="" type="radio"/> | d | e |
| 2. | a | b | c | <input checked="" type="radio"/> | e | 22. | a | b | <input checked="" type="radio"/> | d | e |
| 3. | a | b | <input checked="" type="radio"/> | d | e | 23. | a | <input checked="" type="radio"/> | c | d | e |
| 4. | a | b | <input checked="" type="radio"/> | d | e | 24. | a | b | c | <input checked="" type="radio"/> | e |
| 5. | <input checked="" type="radio"/> | b | c | d | e | 25. | a | b | <input checked="" type="radio"/> | d | e |
| 6. | a | b | c | <input checked="" type="radio"/> | e | 26. | a | b | c | <input checked="" type="radio"/> | e |
| 7. | a | <input checked="" type="radio"/> | c | d | e | 27. | a | b | c | <input checked="" type="radio"/> | e |
| 8. | a | b | <input checked="" type="radio"/> | d | e | 28. | a | b | c | d | <input checked="" type="radio"/> |
| 9. | a | <input checked="" type="radio"/> | c | d | e | 29. | a | <input checked="" type="radio"/> | c | d | e |
| 10. | a | b | c | d | <input checked="" type="radio"/> | 30. | a | <input checked="" type="radio"/> | c | d | e |
| 11. | a | <input checked="" type="radio"/> | c | d | e | 31. | a | <input checked="" type="radio"/> | c | d | e |
| 12. | a | b | <input checked="" type="radio"/> | d | e | 32. | a | b | c | <input checked="" type="radio"/> | e |
| 13. | <input checked="" type="radio"/> | b | c | d | e | 33. | a | <input checked="" type="radio"/> | c | d | e |
| 14. | a | <input checked="" type="radio"/> | c | d | e | 34. | a | b | <input checked="" type="radio"/> | d | e |
| 15. | a | b | c | <input checked="" type="radio"/> | e | 35. | <input checked="" type="radio"/> | b | c | d | e |
| 16. | a | <input checked="" type="radio"/> | c | d | e | 36. | <input checked="" type="radio"/> | b | c | d | e |
| 17. | a | b | <input checked="" type="radio"/> | d | e | 37. | a | b | <input checked="" type="radio"/> | d | e |
| 18. | a | <input checked="" type="radio"/> | c | d | e | 38. | a | b | c | <input checked="" type="radio"/> | e |
| 19. | a | b | c | <input checked="" type="radio"/> | e | 39. | a | b | <input checked="" type="radio"/> | d | e |
| 20. | a | b | <input checked="" type="radio"/> | d | e | 40. | a | b | c | <input checked="" type="radio"/> | e |

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|-----|---|---|---|---|---|-----|---|---|---|---|---|
| 1. | a | b | c | d | e | 21. | a | b | c | d | e |
| 2. | a | b | c | d | e | 22. | a | b | c | d | e |
| 3. | a | b | c | d | e | 23. | a | b | c | d | e |
| 4. | a | b | c | d | e | 24. | a | b | c | d | e |
| 5. | a | b | c | d | e | 25. | a | b | c | d | e |
| 6. | a | b | c | d | e | 26. | a | b | c | d | e |
| 7. | a | b | c | d | e | 27. | a | b | c | d | e |
| 8. | a | b | c | d | e | 28. | a | b | c | d | e |
| 9. | a | b | c | d | e | 29. | a | b | c | d | e |
| 10. | a | b | c | d | e | 30. | a | b | c | d | e |
| 11. | a | b | c | d | e | 31. | a | b | c | d | e |
| 12. | a | b | c | d | e | 32. | a | b | c | d | e |
| 13. | a | b | c | d | e | 33. | a | b | c | d | e |
| 14. | a | b | c | d | e | 34. | a | b | c | d | e |
| 15. | a | b | c | d | e | 35. | a | b | c | d | e |
| 16. | a | b | c | d | e | 36. | a | b | c | d | e |
| 17. | a | b | c | d | e | 37. | a | b | c | d | e |
| 18. | a | b | c | d | e | 38. | a | b | c | d | e |
| 19. | a | b | c | d | e | 39. | a | b | c | d | e |
| 20. | a | b | c | d | e | 40. | a | b | c | d | e |