

There are 4 points for each problem.

Note:

- (1) This is a closed book, closed notes test. (2) The use of calculator is not permitted.
(3) Please turn off all the electronic devices.

Problem 1. Choose the correct expression: 3 less than the quotient of m divided by 12

- (A) $\frac{m-3}{12}$ (B) $3m - 12$ (C) $\frac{m}{12} - 3$ (D) $\frac{m}{3} - 12$ (E) None of these.

Problem 2. $-2\left(-\frac{7}{8}\right)$ is equal to

- (A) $\frac{7}{4}$ (B) $-\frac{7}{4}$ (C) $\frac{4}{7}$ (D) $-\frac{4}{7}$ (E) None of these.

Problem 3. Choose the correct expression: 12 divided by 3 less than n

- (A) $\frac{12}{n-3}$ (B) $\frac{12}{n} - 3$ (C) $3 - \frac{12}{n}$ (D) $\frac{n-3}{12}$ (E) None of these.

Problem 4. The oven temperature started at 75° and is rising at 30° per minute. If m represent the number of minutes elapsed since the oven was turned on, the expression for oven temperature is

- (A) $75(30 + m)$ (B) $30 + 75 + m$ (C) $75 - 30m$ (D) $75 + 30m$ (E) None of these.

Problem 5. $80 - 56 \div 8$ is equal to

- (A) -73 (B) 3 (C) 37 (D) 73 (E) None of these.

Problem 6. Choose the correct expression: Subtract C from F

- (A) $C - F$ (B) $F - C$ (C) $\frac{C}{F}$ (D) $\frac{F}{C}$ (E) None of these.

Problem 7. The solution to the equation: $x - (-8) = 3$

- (A) $x = -5$ (B) $x = 5$ (C) $x = 11$ (D) $x = 5$ (E) None of these.

Problem 8. $-\frac{2}{21j^2}\left(-\frac{15j}{8}\right)$ is equal to

- (A) $\frac{5j}{28}$ (B) $-\frac{5}{28}$ (C) $-\frac{5}{28j}$ (D) $\frac{5}{28j}$ (E) None of these.

Problem 9. Given equation $2d - 9 = -1$. The solution is

- (A) $d = -8$ (B) $d = 8$ (C) $d = 4$ (D) $d = -4$ (E) None of these.

Problem 10 $\left(-\frac{5}{6}\right)^2$ is equal to

- (A) $-\frac{10}{12}$ (B) $\frac{25}{36}$ (C) $-\frac{25}{36}$ (D) $\frac{10}{12}$ (E) None of these.

Problem 11 Given equation $\frac{y}{-3} = 15$. The solution is

- (A) 45 (B) -12 (C) 5 (D) -45 (E) None of these.

Problem 12 Jasmine spend $5\frac{1}{2}$ hours on her math class. If the total number of hours

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she study during the week is H . The number of hours that she studies for other subjects is

(A) $H - 5.2$ (B) $5\frac{1}{2} - H$ (C) $H - 5\frac{1}{2}$ (E) None of these.

Problem 13 A piece of string is cut into 3 pieces, each of length 50 centimeters. The equation to find the original length of the string is

(A) $\frac{L}{50} = 3$ (B) $\frac{L}{3} = 50$ (C) $3L = 50$ (D) $L = \frac{50}{3}$ (E) None of these.

L : the original length of the string.

Problem 14 Given expression: $(-21) - (-17)$, the answer is

(A) -38 (B) 38 (C) -4 (D) 5 (E) None of these.

Problem 15. Augustus Caesar died in A.D. 14, 58 years after the death of Julius Caesar. Julius Caesar died in the year:

(A) Not enough information (B) 33 B.C. (C) 44 A.D. (D) 44 B.C. (E) None of these.

Problem 16 Given equation $-x + 3 = -2$. The solution is

(A) -1 (B) 5 (C) 1 (D) -5 (E) None of these.

Problem 17. $100 - 75 \div 25(3)$ is the same as:

(A) 91 (B) 3 (C) -3 (D) 90 (E) None of these.

Problem 18. $24 \div 6 + 2 \cdot 8 \div 4$ is the same as:

(A) 16 (B) 2.4 (C) 6 (D) 8 (E) None of these.

Problem 19 $-(\frac{3}{5})^2$ is equal to

(A) $-\frac{6}{15}$ (B) $-\frac{9}{25}$ (C) $\frac{9}{25}$ (D) $\frac{6}{15}$ (E) None of these.

Problem 20 $\frac{6+18}{6+6}$ is the same as:

(A) 2 (B) 4 (C) $\frac{1}{2}$ (D) 5 (E) None of these.

Problem 21 $-\frac{3ef^3}{5b} \cdot \frac{10b}{e^2f}$ is equal to

A $\frac{6f^2}{e}$ (B) $-\frac{6f^2}{e}$ (C) $\frac{f^2}{6e}$ (D) $-\frac{f^2}{6e}$ (E) None of these.

Problem 22. $\frac{35m^3n^4}{25m^4n^3}$ is equal to

A. $\frac{7m}{5n}$ B. $\frac{5n}{7m}$ (C) $\frac{7n}{5m}$ (D) None of these.

Problem 23 There are D dimes in Lynn's pocket, the value of the dimes is

(A) $10D$ cents (B) $\$10D$ (C) $100D$ cents (D) None of these.

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Problem 24 $\frac{5}{12}$ is the same as

- (A) $\frac{15n}{36n}$ (B) $\frac{15}{36n}$ (C) $\frac{15n}{36}$ (D) None of these.

Problem 25 $-\frac{26}{78}$ is the same as

- (A) $-\frac{1}{3}$ (B) -3 (C) $\frac{1}{3}$ (D) None of these.

Problem 26 Coupons A shopper used some 20-cents-off and some 40-cents-off coupons at the supermarket to get a reduction of \$2.60 from her grocery bill. If she used a total of 8 coupons, and x represents the number of 20 – cents coupons.

Which of the following equation fit the description of the problem?

- (A) $260 = 20x + 40(x - 8)$ (B) $260 = 20(x - 8) + 40x$ (C) $260 = 20x + 40(8 - x)$ (D) None of these.

Problem 27 $6(t - 3) + 9(2 - t)$ is the same as

- (A) $-3t$ (B) $3t$ (C) $-3t + 38$ (D) None of these.

Problem 28 $-8(7) - (4s)(7)$ is the same as

- (A) $7(-8 - 4s)$ (B) $7(-8 + 4s)$ (C) $7(8 - 4s)$ (D) $-7(-8 + 4s)$ (E) None of these.

Problem 29 $-3(1 - y) - 5(2y - 6)$ is the same as
 $= -3 + 3y - 10y - 30$

- (A) $-7y - 33$ (B) $-7y + 27$ (C) $-13y - 33$ (D) $-7y - 33$ (D) None of these.

Problem 30 for $a = -3$, then $-a^2 + 5a$ is the same as

- (A) 24 (B) -6 (C) -24 (D) None of these.

Problem 31 $-\frac{5}{8} - \frac{1}{3}$ is equal to

- (A) $-\frac{23}{24}$ (B) $-\frac{24}{23}$ (C) $-\frac{7}{24}$ (D) None of these.

Problem 32 $\frac{3}{10}$ is equal to

- (A) $\frac{a}{10a}$ (B) $\frac{15}{50a}$ (C) $\frac{15a}{50a}$ (D) None of these.

Problem 33 $\frac{14xy}{16xy}$ is equal to

- (A) $\frac{7x}{8y}$ (B) $\frac{7}{8}$ (C) $\frac{8}{7}$ (D) None of these.

Problem 34 3 is equal to

- (A) $\frac{18a}{6a}$ (B) $\frac{6a}{18a}$ (C) $\frac{1}{3}$ (D) None of these.

Problem 35 $\frac{3}{5}$ of 435 is the same as

- (A) 261 (B) $\frac{1}{261}$ (C) None of these.

Problem 36 $(\frac{2}{3})(-\frac{1}{16})(-\frac{4}{5})$ is the same as

- (A) 30 (B) $\frac{1}{30}$ (C) $-\frac{1}{30}$ (D) -30 (E) None of these.

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Problem 37 $-\left(\frac{3}{4}\right)^2$ is the same as

(A) $\frac{9}{16}$ (B) $\frac{9}{16}$ (C) $-\frac{9}{16}$ (D) $-\frac{16}{9}$ (E) None of these.

Problem 38 $\frac{9}{16} \div \left(-\frac{3}{20}\right)$ is the same as

(A) $\frac{27}{320}$ (B) $\frac{4}{15}$ (C) $-\frac{15}{4}$ (D) None of these.

Problem 39 $-\frac{x^2}{y^3} \div \frac{x}{y}$ is the same as

(A) $-\frac{x}{y^2}$ (B) $\frac{x}{y^2}$ (C) $-\frac{x^3}{y^4}$ (D) None of these.

Problem 40 The best common denominator LCD for $\frac{1}{24}$, $\frac{1}{26}$, and $\frac{1}{48}$ is

(A) 1248 (B) 624 (C) 1152 (D) None of these.