

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.  $3\frac{1}{4}$  is the same as

- (A) 3.4 (B) 3.25 (C) 3.14 (D) 0.75 (E) None of these.

Problem 2.  $-2 \cdot \frac{7}{8}$  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.  $-12 - (-5)$  is equal to

- (A) 17 (B) 7 (C) -7 (D) -17 (E) None of these.

Problem 4.  $12 - 2[-8 - 2^4(-1)]$  is equal to

- (A) -4 (B) 80 (C) 4 (D) 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.  $-|-53|$  is equal to

- (A) 53 (B) -53 (C) None of these.

Problem 7. The solution to the equation:  $2x - 2 = 6$

- (A)  $x = -2$  (B)  $x = -4$  (C)  $x = 4$  (D)  $x = 2$  (E) None of these.

Problem 8. 12 less than twice the total  $T$  can be written in math expression as

- (A)  $2(T - 12)$  (B)  $2Tt - 12$  (C)  $12 - 2T$  (D) None of these.

Problem 9. The solution to the equation:  $-(3x - 3) = 6(2x - 7)$

- (A) 3 (B)  $x = \frac{39}{15}$  (C)  $x = \frac{2}{3}$  (D)  $x = -3$  (E) None of these.

Problem 10.  $-\left(-\frac{2}{3}\right)^2$  is equal to

- (A)  $\frac{4}{6}$  (B)  $-\frac{4}{6}$  (C)  $-\frac{4}{9}$  (D)  $\frac{4}{9}$  (E) None of these.

Problem 11. Simplify  $\frac{10y}{15y}$ , we get

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

Problem 12.  $4\frac{2}{5} \div 11$  is equal to

- (A) 48.4 (B)  $\frac{2}{5}$  (C)  $8\frac{2}{5}$  (D) None of these.

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Problem 13  $\frac{4}{m} + \frac{2}{7}$

(A)  $\frac{8}{7m}$  (B)  $\frac{30}{7}$  (C)  $\frac{28+2m}{7m}$  (D)  $\frac{28}{2m}$  (E) None of these.

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

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

Problem 15.  $34\frac{1}{9} - 13\frac{5}{6}$  is equal to

(A)  $11\frac{13}{18}$  (B)  $20\frac{5}{8}$  (C)  $11\frac{-4}{18}$  (D)  $-11\frac{4}{3}$  (E) None of these.

Problem 16  $78.1 - 7.81$  is equal to

(A)  $70$  (B)  $70.29$  (C)  $71.80$  (D) 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  $-(\frac{3}{4})^2$  is equal to

(A)  $-\frac{9}{16}$  (B)  $-\frac{6}{8}$  (C)  $\frac{6}{8}$  (D)  $\frac{9}{16}$  (E) None of these.

Problem 20  $\frac{6+2x}{2+2x}$  is the same as:

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

Problem 21  $\frac{11}{15}$  is the same as

(A)  $0.7\bar{3}$  (B)  $0.7$  (C)  $0.\bar{73}$  (D) None of these.

Problem 22.  $(m^2 - m - 5) - (3m^2 + 2m - 8)$  is the same as

A.  $-2m^2 + 3m - 3$  B.  $2m^2 - 3m + 3$  (C)  $-2m^2 - 3m + 3$  (D) None of these.

Problem 23  $(3x - 2)(x + 4)$  is the same as

(A)  $3x^2 + 10x + 8$  (B)  $3x^2 - 10x - 8$  (C)  $3x^2 + 10x - 8$  (D) None of these.

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

(A)  $-3t$  (B)  $15t - 36$  (C)  $15t - 36$  (D) None of these.

Problem 27 Coupons A shopper used some 20-cents-off and some 40-cents-off

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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-cent coupons. Which of the following equations 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 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

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

Problem 30  $(a^4)^2$  is the same as

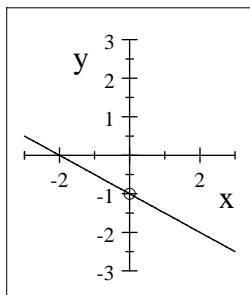
- (A)  $a^6$  (B)  $a^{16}$  (C)  $a^8$  (D) None of these.

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

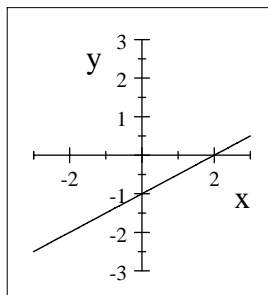
- (A)  $\frac{23}{24}$  (B)  $-\frac{24}{23}$  (C)  $-\frac{23}{24}$  (D) None of these.

Problem 32 Choose the graph that matches the line  $y = \frac{1}{2}x + 1$

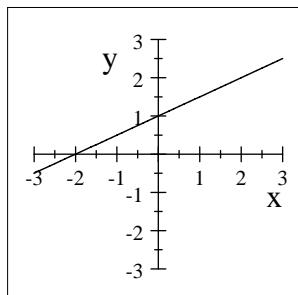
A



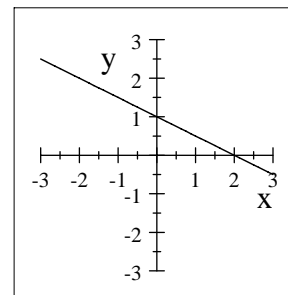
B



C



D



E. None of these.

Problem 33 8.25% is the same as

- (A) 0.825 (B) 8.25 (C) 0.0825 (D) None of these.

Problem 34  $33\frac{1}{3}\%$  is exactly the same as

- (A) 0.33 (B) 11% (C)  $\frac{1}{3}$  (D) None of these.

Problem 35 36% of 250 is

- (A) 90 (B) 9 (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.

Problem 37  $66\frac{2}{3}\%$  of what number is 30? The number is

- (A) 20 (B) 40 (C) 45 (D) None of these.

Problem 38 Choose the right percent. What percent of 800 is 250?

- (A) 31.25% (B) 320% (C)  $-\frac{15}{4}$  (D) None of these.

Problem 39  $3\sqrt{144} - \sqrt{49}$

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(A) 15 (B) 29 (C) None of these.

Problem 40  $\sqrt{5\sqrt{9+16}}$

(A) 11 (B) 5 (C) None of these.