

Exam

Name \_\_\_\_\_

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

1) Transpose the formula

1) \_\_\_\_\_

$$Y = \frac{b + I}{1 - a}$$

to express  $a$  in terms of  $Y$ ,  $b$  and  $I$ .

A)  $a = \frac{b}{Y} + \frac{I}{Y} + Y$

B)  $a = \frac{b + I - 1}{Y}$

C)  $a = 1 + \frac{Y + I}{b}$

D)  $a = \frac{I}{Y} - \frac{Y}{b} + 1$

E)  $a = 1 - \frac{b}{Y} - \frac{I}{Y}$

Answer: E

Explanation: A)  
B)  
C)  
D)  
E)

2) How many of the following points lie on the line  $3x - 5y = 25$ ?

2) \_\_\_\_\_

(5, -2), (10, -1), (-5, 0), (5, 10), (-5, 10), (0, 5)

A) 2

B) 4

C) 1

D) 3

E) 5

Answer: C

Explanation: A)  
B)  
C)  
D)  
E)

3) Given that

3) \_\_\_\_\_

$G = 50$

$I = 40$

$C = 0.75Y_d + 45$

$T = 0.2Y + 80$

calculate the equilibrium level of national income.

A) 175

B) 187.5

C) 125

D) 487.5

E) 75

Answer: B

Explanation: A)  
B)  
C)  
D)  
E)

4) If the line,  $P = -\frac{2}{3}Q + 6$ , is sketched with  $P$  on the horizontal axis, and  $Q$  on the vertical axis, which 4) \_\_\_\_\_  
of the following gives the gradient,  $m$ , and vertical intercept,  $c$ ?

A)  $m = -\frac{2}{3}, c = 6$

B)  $m = -\frac{3}{2}, c = 6$

C)  $m = -\frac{3}{2}, c = 9$

D)  $m = -\frac{3}{2}, c = -6$

E)  $m = -\frac{2}{3}, c = 4$

Answer: C

Explanation: A)  
B)  
C)  
D)  
E)

5) If  $x = -3, y = 4$  and  $z = -2$ , evaluate  $2x^2 + 3y - 5z$ . 5) \_\_\_\_\_  
A) -16                      B) 4                      C) 40                      D) 20                      E) 58

Answer: C

Explanation: A)  
B)  
C)  
D)  
E)

6) If the following system of linear equations has infinitely many solutions, find the value of  $k$ . 6) \_\_\_\_\_

$$6x - 4y = 2$$

$$-3x + 2y = k$$

A) -1                      B) 0                      C) -4                      D) 4                      E) 1

Answer: A

Explanation: A)  
B)  
C)  
D)  
E)

7) Simplify

$$\frac{x^2}{x+1} \div \frac{2x}{x^2-1}$$

- A)  $2x(x-1)$
- B) none of these
- C)  $\frac{x(x+1)}{2}$
- D)  $\frac{x(x-1)}{2}$
- E)  $2x(x+1)$

Answer: D

Explanation: A)  
B)  
C)  
D)  
E)

7) \_\_\_\_\_

8) Multiply out the brackets and simplify

$$(x-y)(x+y) - (x+2)(x-y+3)$$

- A)  $xy - y^2 - 5x + 2y - 6$
- B)  $xy - 6 + 5x + y^2$
- C)  $x + 2y - 6 + 2xy - y^2$
- D)  $x - 2y - 6 - xy - y^2$
- E)  $2xy + 5x - 6 + y^2$

Answer: A

Explanation: A)  
B)  
C)  
D)  
E)

8) \_\_\_\_\_

9) Simplify

$$\frac{2x+5}{4} - \frac{x-1}{2}$$

- A)  $\frac{x}{4} + \frac{3}{4}$
- B)  $\frac{x}{4} + \frac{7}{4}$
- C)  $\frac{7}{4}$
- D)  $\frac{x}{4} - \frac{7}{4}$
- E)  $\frac{3}{4}$

Answer: C

Explanation: A)  
B)  
C)  
D)  
E)

9) \_\_\_\_\_

10) The demand and supply functions of a good are given by

$$P = -3Q_D + 48$$

$$P = \frac{1}{2}Q_S + 23$$

Find the equilibrium quantity if the government imposes a fixed tax of \$4 on each good.

A)  $\frac{2}{3}$

B)  $\frac{42}{5}$

C)  $\frac{3}{2}$

D)  $\frac{50}{7}$

E) 6

Answer: E

Explanation: A)  
B)  
C)  
D)  
E)

10) \_\_\_\_\_

Answer Key

Testname: C1

- 1) E
- 2) C
- 3) B
- 4) C
- 5) C
- 6) A
- 7) D
- 8) A
- 9) C
- 10) E