

Student No.:	Date: / /	Score:
Student Name:	/20	

## Revision of Simultaneous Equations in Two Unknowns (I)

### Exercises

1. Without drawing the graph of the equation  $3x + y = 9$ , determine whether each of the following points lies on it.

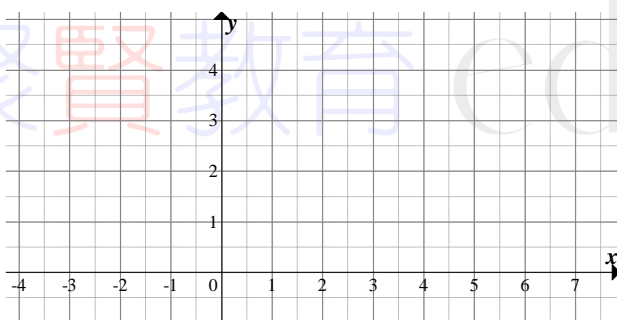
(a)  $A(2,4)$

(b)  $B(0,9)$

(c)  $C(4,-3)$

2. (a) Draw the graph of the equation  $x + 2y - 5 = 0$ .

$x$			
$y$			



- (b) Given the graph drawn in (a) cuts the  $x$ -axis and the  $y$ -axis at points  $A$  and  $B$  respectively, write down the coordinates of  $A$  and  $B$ .

## S2E-44A

3. Solve the following simultaneous equations by the method of substitution.

(a) 
$$\begin{cases} y = x - y \\ 2x + 3y - 4 = 0 \end{cases}$$

(b) 
$$\begin{cases} y - 2x = 7 \\ 4x - 5y = 1 \end{cases}$$

4. Solve the following simultaneous equations by the method of elimination.

(a) 
$$\begin{cases} x + 4y = 9 \\ 3x + y = 5 \end{cases}$$

(b) 
$$\begin{cases} 2x = y - 1 \\ 3x + 2y + 3 = 0 \end{cases}$$

(c) **Harder**  $2(x-1) + 7y = 3x - 2(y-1) = 15$

5. Solve each of the following simultaneous equations by any algebraic method.

(a) 
$$\begin{cases} 3(2y-1) + 8x = 4 \\ 2(2y-1) + 5x = -1 \end{cases}$$

(b) 
$$\begin{cases} \frac{x}{3} - \frac{y}{8} = 3 \\ \frac{x}{6} + \frac{y}{4} = 2 \end{cases}$$

6. **Harder** If the coefficient and degree of the product of  $(5m + 6n)y^{2m-3}$  and  $4y^{4-3n}$  are  $-60$  and  $22$  respectively, find the constants  $m$  and  $n$ .
7. In a basketball game, Joe made  $x$  2-point shots and  $y$  3-point shots. He scored a total 23 points and he made 4 more 2-point shots than 3-point shots. Find the number of 2-point shots and 3-point shots that he made.
8. Jackie has some 50 cents coins and \$2 coins. Among the coins that Jackie has, two times the number of 50 cents coins is 10 more than the number of \$2 coins. If the total value of coins is \$88, find the number of 50 cents and \$2 coins that Jackie has.
9. Tom's salary is \$1000 less than twice that of Stanley's salary. If Stanley's salary is less than Tom's salary by \$7000. What is the salary of each of them?

## S2E-44A

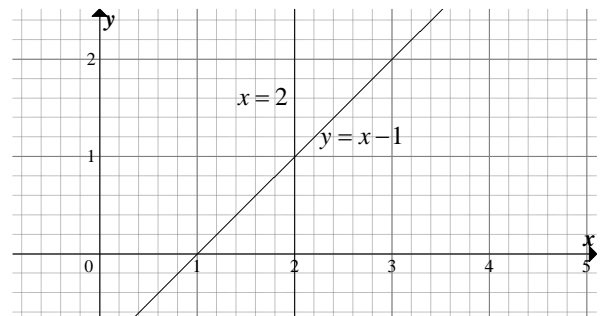
### M.C.

1. Which of the following points lies on the graph of the equation  $2x - 3y = 11$ ?

- A.  $(-1, 3)$                                       B.  $(7, 1)$   
C.  $(4, 2)$                                       D.  $(10, -3)$

2. From the figure, the solution of the simultaneous equation  $\begin{cases} x = 2 \\ y = x - 1 \end{cases}$  is

- A.  $x = 1, y = 1.$   
B.  $x = 2, y = -1.$   
C.  $x = 2, y = 1.$   
D.  $x = -1, y = 1.$

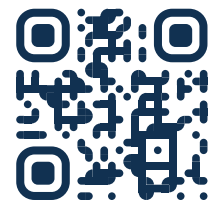


3. **Harder** Solve  $\begin{cases} \frac{1}{18}(a+b) = 0.5 - \frac{b}{36} \\ 0.25(b-a) + \frac{1}{12} = \frac{b}{12} \end{cases}$ .

- A.  $a = 12, b = 3$   
B.  $a = 3, b = 3$   
C.  $a = 3, b = 4$   
D.  $a = -3, b = 4$

4. Peter and Susan each tried to sell a basket of apples and of the same weight. Peter sold 7 kg of apples and Susan sold 19 kg of apples. The weight of apples left in Peter's basket was three times that in Susan's basket. Find the weight of each basket of apples in the beginning.

- A. 28 kg  
B. 26 kg  
C. 25 kg  
D. 27 kg



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