FORM 1

CHAPTER 6

Summative Practice

Section A

1 Let N be the number added to 45.
$45 + N = D$
Answer: **C**

2 $x + y = 635$

x	0	635
y	635	0

Answer: **D**

3 $30(0.6) + 1.7x = 1.4(30 + x)$
$ 18 + 1.7x = 42 + 1.4x$
$ 0.3x = 24$
$ x = 80 \text{ kg}$
Answer: **D**

4 $3x + 2y = 10 \ldots\ldots\ldots\ldots\ldots\text{①}$
$4x + 3y = 13 \ldots\ldots\ldots\ldots\ldots\text{②}$
$\text{①} \times 3: 9x + 6y = 30 \ldots\ldots\ldots\text{③}$
$\text{②} \times 2: 8x + 6y = 26 \ldots\ldots\ldots\text{④}$
$\text{③} - \text{④} : x = 4$
Substitute $x = 4$ into ①,
$3(4) + 2y = 10$
$ 2y = 10 - 12$
$ y = -1$
Answer: **B**

5 $0.5x + 2y = 10 \ldots\ldots\ldots\ldots\ldots\text{①}$
$3x - 8y = -40 \ldots\ldots\ldots\ldots\ldots\text{②}$
$\text{①} \times 4: 2x + 8y = 40 \ldots\ldots\ldots\text{③}$
$\text{③} + \text{②}: 5x = 0 \rightarrow x = 0$
Substitute $x = 0$ into ①,
$0.5(0) + 2y = 10$
$ 2y = 10$
$ y = 5$
Answer: **D**

6 $ 9(r + 7) = 2(s + r)$
$ 9r + 63 = 2s + 2r$
$2s + 2r - 9r = 63$
$ 2s - 7r = 63$
Answer: **A**

7 $2x + y = 18$
$y + 9 = 7x \rightarrow 7x - y = 9$

Line $7x - y = 9$ has x-intercept at $\frac{9}{7}$ and y-intercept at -9.

The simultanoues linear equations has a unique solution.
Answer: **B**

8 Value of tens $= x$, value of ones $= y$
$y - x = 3 \ \ldots\ldots \text{①}$
$x + y = 11 \ \ldots \text{②}$
$\text{①} + \text{②}: 2y = 14 \rightarrow y = 7$
$x + y = 11 \rightarrow x + 7 = 11$
$ x = 4$
Integer $= 47$
Answer: **B**

9 Answer: **A**

Section B

1 (a)

2 $2x + 5y = 9 \ldots\ldots\ldots\ldots\text{①}$
$2x - 3y = 1 \ldots\ldots\ldots\ldots\text{②}$
$\text{①} - \text{②} : \boxed{8y} = 8$
$\phantom{\text{①} - \text{②} :} y = \boxed{1}$
$2x - \boxed{3} = 1$
$ x = \boxed{2}$

Section C

1 (a) (i) $5x = 2(y + 1) \rightarrow 5x - 2y = 2$
$ 3x + 4 = x + 2y - 6$
$ 2x - 2y = -10$
$ x - y = -5$
$ $ (ii) $5x - 2y = 2 \ldots\ldots\ldots\text{①}$
$ x - y = -5$
$ x = y - 5 \ldots\ldots\text{②}$
Substitute ② into ①,
$5(y - 5) - 2y = 2$
$5y - 25 - 2y = 2$
$ 3y = 27$
$ y = 9$
$x = 9 - 5 = 4$
$\therefore x = 4, y = 9$

(b) $\phantom{\text{①} \times 2:} 2r + t = 5 \ \ldots\ldots \text{①}$
$\phantom{\text{①} \times 2:} 3r + 2t = 8 \ \ldots\ldots \text{②}$
$\text{①} \times 2: \ 4r + 2t = 10 \ \ldots\ldots \text{③}$
$\text{③} - \text{②}: r = 2$
Substitute $r = 2$ into ①,
$2(2) + t = 5$
$ t = 1$
Price of a slice of bread $= \text{RM2}$
Price of a glass of tea $= \text{RM1}$