A135 Rearranging formula 1

Q1.

$$q = \frac{p}{r} + s$$

Make *p* the subject of this formula.

.....

(Total for question = 2 marks)

Q2.

Make *t* the subject of the formula $w = 3t + 11$

.....

(Total for question is 2 marks)

Q3.

Make t the subject of the formula $y = \frac{t}{3} - 2a$

.....

(Total for question = 2 marks)

Q4.

Make g the subject of the formula $T = \sqrt{\frac{g+6}{2}}$

.....

(Total for question = 3 marks)

Q5.

Make x the subject of the formula $y = 2x + 4$

.....

(Total for question = 2 marks)

Q6.

(a) Simplify $y^3 + y^3$

.....

(1)

(b) Factorise $m^2 + m$

.....

(1)

(c) Make h the subject of the formula $c = 3h + 5$

.....

(2)

(Total for question = 4 marks)

Q7.

$v^2 = u^2 + 2as$

$u = 12 \quad a = -3 \quad s = 18$

(a) Work out a value of v.

.....

(2)

(b) Make s the subject of $v^2 = u^2 + 2as$

.....

(2)

(Total for question = 4 marks)

Q8.

$T = 4v + 3$

(a) Work out the value of T when $v = 2$

$T =$ .....

(2)

(b) Make v the subject of the formula $T = 4v + 3$

.....

(2)

(Total for question = 4 marks)

Q9.

(a) Expand $x(5 - x)$

.....

(1)

(b) Factorise $3y - 21$

.....

(1)

(c) Make p the subject of the formula $f = 3p - d$

.....

(2)

Sergio buys m boxes of seeds and n packets of seeds.

Each box contains 10 seeds.
Each packet contains 6 seeds.

The total number of seeds that Sergio buys is T.

(d) Write down a formula for T in terms of m and n.

.....

(3)

(Total for question = 7 marks)

Q10.

Simon has x sweets.
Yuen has 2 more sweets than Simon.
Giulia has 3 times as many sweets as Yuen.

Simon, Yuen and Giulia have a total of T sweets.

(a) Write down a formula for T in terms of x.

Give your formula in its simplest form.

.....

(3)

(b) Make g the subject of the formula $r = 4g + 7$

.....

(2)

(c) Solve $6y – 3 = 2y + 8$

Show clear algebraic working.

y = ...

(3)

(Total for question = 8 marks)

Q11.

(a) Solve $5m + 7 = 24$

(2)

(b) Make t the subject of $k = \frac{t - e}{2}$

(2)

(c) Simplify $p^8 \div p^3$

(1)

(d) Simplify n^0

(1)

(e) Simplify $(3x^2y^5)^3$

(2)

(Total for question = 8 marks)