



ST. MARY HIGH SCHOOL MUHAISNAH
MATHS 2025-2026
Y8 UNIT TEST REVISION PAPER

General instructions: Read and understand the questions carefully. Show complete working out.

Q1.

(a) Expand and simplify $2x(-x + 3) - 2x(5x + 7)$

$$\begin{aligned} & 2x(-x + 3) - 2x(5x + 7) \\ & \boxed{-2x^2} + 6x \boxed{-10x^2} - 14x \\ & -2x^2 - 10x^2 + 6x - 14x \\ & \boxed{-12x^2 - 8x} \end{aligned} \quad \dots \quad -12x^2 - 8x$$

(2)

(b) Make p the subject of the formula $t = ap - 2d$

$$\begin{aligned} t &= ap - 2d \\ \frac{t + 2d}{a} &= \frac{ap}{a} \\ \frac{t + 2d}{a} &= p \end{aligned} \quad \dots \quad p = \frac{t + 2d}{a}$$

(2)

Given that $c^m \times c^n = c^8$

(c) Find two different pairs of values for m and n .

$$c^m \times c^n = c^8$$

possible answers :

$$c^{m+n} = c^8$$

$$m+n = 8$$

1 and 7

2 and 6

3 and 5

4 and 4

$n = \dots$

(2)

(Total for question = 6 marks)



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Q2.

(a) Solve $6m + 3 = 39$

$$\begin{array}{r} 6m + 3 = 39 \\ \cancel{+3} \quad \cancel{-3} \\ 6m = 36 \\ \cancel{6} \quad \cancel{6} \\ m = 6 \end{array}$$

$$m = \boxed{6} \quad (2)$$

(b) Make t the subject of $\frac{x+t}{m} = 2c$

$$\begin{array}{l} m \left[\frac{x+t}{m} = 2c \right] m \\ x+t = 2cm \\ -x \quad -x \\ t = 2cm - x \end{array}$$

$$t = 2cm - x \quad (2)$$

(Total for question = 4 marks)

Q3. Find the value of $18 - 2g$ when $g = -7$

$18 - 2g \rightarrow$ replace g with -7

$$18 - 2(-7)$$

$$18 + 14$$

$$\boxed{32}$$

$$32$$

(Total for question = 2 marks)

Q4.

Solve $3(5x + 2) = 27 - 6x$

Show clear algebraic working.

$$\underline{3(5x + 2)} = 27 - 6x$$

$$15x + 6 = 27 - 6x$$

$$+6x \quad \cancel{+6x}$$

$$21x + 6 = 27$$

$$-6 \quad -6$$

$$\underline{\underline{21x}} = \underline{\underline{21}}$$

$$\boxed{x = 1}$$

$$x = \underline{\underline{1}}$$

(Total for question = 3 marks)



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Q5.

Solve $4x - 5 = x - 14$

Show clear algebraic working.

$$4x - 5 = x - 14$$
$$-x \quad -x$$

$$3x - 5 = -14$$
$$+5 \quad +5$$

$$\frac{3x}{3} = \frac{-9}{3}$$

$$x = -3$$

$$x = \dots \quad -3$$

(Total for question = 3 marks)

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Q6.

Hannah is n years old.

Her aunt Emily is three times older than Hannah.

Emily is 48 years old.

(a) Write down an equation for this information.

(b) Solve your equation to ^{find} how old Hannah is.

a. $3n = 48$

b. $\frac{3n}{3} = \frac{48}{3}$

$$n = 16$$

Note: Always show your working out.

a. $3n = 48$

b. $n = 16$

(Total for question = 3 marks)



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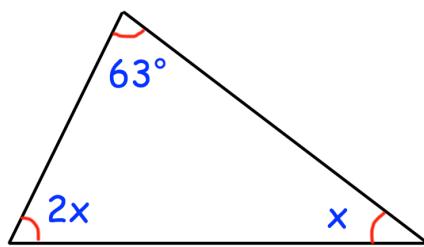
Q7.

Shown is a triangle.

The three angles add up to give 180°

(a) Write down an equation for this information

(b) Solve your equation to find x .



a. $2x + 63 + x = 180$ - combine like terms

$$2x + x + 63 = 180$$

$$3x + 63 = 180$$

b. $3x + 63 = 180$
 $-63 \quad -63$

$$\frac{3x}{3} = \frac{117}{3}$$

$$x = 39$$

Note: Always show
your working out.

a. $3x + 63 = 180$

b. $x = 39$

$x = \dots$

(Total for question = 4 marks)

END