



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  $2x(-x+3) - 2x(5x+7)$

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

$$-12x^2 - 8x$$

(2)

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

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

$$p = \frac{t+2d}{a}$$

(2)

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

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

$$\begin{aligned} c^m \times c^n &= c^8 \\ c^{m+n} &= c^8 \\ m+n &= 8 \end{aligned}$$

possible answers :

1 and 7  
2 and 6  
3 and 5  
4 and 4

$n =$  .....

(2)

(Total for question = 6 marks)



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Q2.

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

$$\begin{array}{r} 6m + 3 = 39 \\ -3 \phantom{00} \\ \hline 6m = 36 \\ \div 6 \phantom{00} \\ \hline m = 6 \end{array}$$

$m =$  (2)

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

$$\begin{array}{l} m \left[ \frac{x+t}{m} = 2c \right] m \\ x+t = 2cm \\ -x \phantom{00} \\ \hline t = 2cm - x \end{array}$$

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

(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.

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

$$\begin{array}{r} 15x + 6 = 27 - 6x \\ +6x \phantom{00} \phantom{00} \\ \hline 21x + 6 = 27 \end{array}$$

$$\begin{array}{r} 21x + 6 = 27 \\ -6 \phantom{00} -6 \\ \hline 21x = 21 \end{array}$$

$$\begin{array}{r} 21x = 21 \\ \div 21 \phantom{00} \\ \hline x = 1 \end{array}$$

$$\boxed{x = 1}$$

$$x = 1$$

(Total for question = 3 marks)



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Q5.

Solve  $4x - 5 = x - 14$

Show clear algebraic working.

$$\begin{array}{r} 4x - 5 = x - 14 \\ -x \quad -x \end{array}$$

$$\begin{array}{r} 3x - 5 = -14 \\ +5 \quad +5 \end{array}$$

$$\begin{array}{r} 3x = -9 \\ \div 3 \quad \div 3 \end{array}$$

$$x = -3$$

$$x = -3$$

(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.  $\begin{array}{r} 3n = 48 \\ \div 3 \quad \div 3 \end{array}$

$$n = 16$$

Note: Always show your working out.

a.  $3n = 48$

b.  $n = 16$

(Total for question = 3 marks)



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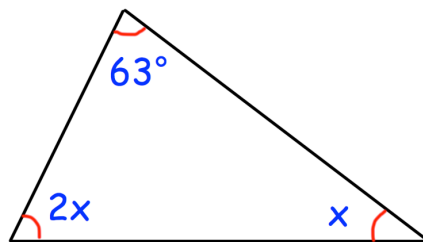
Q7.

Shown is a triangle.

The three angles add up to give  $180^\circ$

(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.  $3x + 63 = 180$

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

$$x = 39$$

Note: Always show  
your working out.

a.  $3x + 63 = 180$

b.  $x = 39$

$x =$  .....

(Total for question = 4 marks)

END