MPM1D0 Unit 2: Homework Quiz 1 **Victim:** Mr. Solutions

Well done Mr. S.!! * 21/21

1. Give ***one example*** of each of the following: (5 /5)

(a) Expression $3xy^2 - 5x^2y$ ✓

(b) Equation that is Solved for the Unknown $4x - 7 = 19$ ✓

(c) Equation that Expresses a Mathematical Relationship $c^2 = a^2 + b^2$ ✓

(d) Identity $n^2 + n^2 = 2n^2$ ✓

(e) A Value that Satisfies the Equation $x^2 = 16$ $x = 4$ ✓ or $x = -4$

2. For each equation. (16 /16)

(i) Complete the flowchart.

(ii) Solve the equation by performing operations to ***both sides***. (B.S. → Abbreviation for "both sides")

(iii) Check your solution.

Equation	***Flowchart***	***Solve the Equation by Performing Operations to B.S.***	***Check the Solution***
(a) $x - 7 = -2$	x → −7 → −2 ; 5 ← +7 ← −2 ✓	$x - 7 = -2$ $\therefore x - 7 + 7 = -2 + 7$ ✓ $\therefore x = 5$ ✓	L.H.S.: $x - 7$ = $5 - 7$ ✓ = -2 ✓ R.H.S.: -2 Since L.H.S. = RHS., $x = 5$ is the solution
(b) $3x + 6 = 11$	x → ×3 → +6 → 11 ; $\frac{5}{3}$ ✓ ← ÷3 ✓ ← −6 ✓ ← 11	$3x + 6 = 11$ $\therefore 3x + 6 - 6 = 11 - 6$ ✓ $\therefore 3x = 5$ $\therefore \frac{3x}{3} = \frac{5}{3}$ ✓ $\therefore x = \frac{5}{3}$ ✓	L.H.S.: $3x + 6$ = $\frac{3}{1}(\frac{5}{3}) + 6$ ✓ = $\frac{15}{3} + 6$ = $5 + 6$ = 11 ✓ R.H.S.: 11 Since L.H.S. = RHS., $x = \frac{5}{3}$ is the solution.