

**Some suggested answers to the Sample SMMT Questions**

1(a) 5, 17

1(b) 9, 121

1(c)  $\sqrt{2}$ ,  $\pi$

2. 10 30 hrs  
(Hint: The LCM of 10, 15 and 25 is 150)

3. No solutions  
(Hint: Observe that the LHS is a positive number while RHS is negative. A number cannot be positive and negative at the same time!)

4. Solve  $m^2 - 5m + 7 = 1$ , and obtain  $m = 2$  or  $3$ .

5(a)  $\frac{5}{3} \text{ cm}^2$

5(b)  $\frac{1}{3} \text{ cm}^2$

(Hint: For question 5, apply the fact that for two given triangles with the same height, the ratio of their area equals the ratio of their bases)

6(a)(i) 55

(ii)  $68 - 40 = 28$

(iii)  $600 - 200 = 400$

6(b) 45

6(c) Paper 2 is more difficult.

7. This is a standard problem involving maxima and minima (application of differential calculus). Answer will not be provided for this problem.