

# MUMS Problem Solving Competition Answers

## ROUND ONE

1.  $(5 + 6 + 7) * 5$  or 90
2. 6
3. 1 : 4 or  $\frac{1}{4}$
4. 36
5. 162 (since  $54 \times 3 = 162$  )

## ROUND TWO

1. 503
2. 10, 11 and 12 (all three needed)
3. 101 (since  $17 + 19 + 19 + 23 + 23 = 101$  )
4. 9
5. (6, 8, 10) and (5, 12, 13)

## ROUND THREE

1. 402
2.  $\sqrt{29}$
3. 450 (metres)
4. 15 (minutes)
5. 20

## ROUND FOUR

1.  $\frac{6}{5}$
2.  $\frac{1}{3}$
3.  $\sqrt{108}$  or  $6\sqrt{3}$
4. 7, 9 and 11 (all three needed)
5. 5

### **ROUND FIVE**

1. 2
2. 16
3.  $\frac{2}{3}$
4. 0
5. 135

### **TIE-BREAKER**

1.  $\frac{3}{5}$