**MATHS**

## Bronze

Possible answers:

201, 203, 204, 206, 207, 208, 209
240,241, 243, 246, 247,248, 249
260,261,263,264, 267, 268, 269

Thinking process:

☐  ☐  ☐
H   T   Ones

Hundreds and Tens digit is even (so could be numbers with 0,2,4,6,8 in H and T)

Tens digit less than 8 (so now only 0,2,4,6 for tens)

Less than 270, hundreds digit is even and three digit (only 2 in hundreds and 0,4,6 in tens. Not 2 in tens as no digits are the same and hundreds has to be 2)

Ones digit not 5 (no 5s in ones column but other odd numbers allowed.

## Gold:

Answer: 16

Thinking process:
Square numbers less than $9^2$
So 1  4  9  16  25  36  49  64

8 is a factor
So ~~1  4  9~~  16  ~~25  36  49~~  64

Multiple of two (still 16 and 64)
At least one of my digits is more than 5 ( still 16 and 64)
Not a multiple of 5 (still 16 and 64)
Subtract three and I am odd ( 16-3=13, 64-3=61)

The sum of my digits is less than 8
64    6+4 = 10  x
16    1+ 6= 7  ☑

## Silver

Answer: 72
Thinking process:
These clues give you upper and lower limits on size.
Less than 90 and more than 70
70< x>90

71 72 73 74 75 76 77 78 79 80
81 82 83 84 85 86 87 88 89

Even
~~71~~ 72 ~~73~~ 74 ~~75~~ 76 ~~77~~ 78 ~~79~~ 80
~~81~~ 82 ~~83~~ 84 ~~85~~ 86 ~~87~~ 88 ~~89~~

Tens digit is odd
~~71~~ 72 ~~73~~ 74 ~~75~~ 76 ~~77~~ 78 ~~79~~ 80
~~81  82  83  84  85  86  87  88  89~~

Tens is greater than ones
 72   74   76   ~~78~~

Round me to nearest 10 to get 70
72   74   ~~76~~

Digits add to odd number
72   7+2 = 9
74   7+4 =11
Count up in fours from 60 to get to me
60, 64, 68, 72, 76      72☑

## Platinum

Answer: 64
Thinking process:
Combine two clues to get an idea of how large the number could be.

Start with square numbers and less than 5x5x5

So 1  4  9  16  25  36  49  64  81  100  121

More than product of 7 and 8 ( so 7 x 8 =56)
So ~~1  4  9  16  25  36  49~~  64  81  100  121

Four is one of my factors
64 ~~81~~  100 ~~121~~

Sum of my digits is not a square number
64   6+ 4= 10  (not square)
100  1+0+0= 1  (which is square)