

# Tom's number workings by Molly Boyes.

$$< 1,000 \quad > 2,000$$

The number is divisible by 7    Odd number.

Key

N = Tom's number

$$N \div 7 = < 100 \quad 700 \div 7 = 100$$

$$N \div 7 = > 200 \quad 1,400 \div 7 = 200$$

$$\therefore N = 700 \rightarrow 1,400$$

But we already know it's over 1,000

$$\therefore N = 1,001 \rightarrow 1,399$$

N = palindromic (it reads the same both ways.)

$\therefore$  it could only be these possibilities

$$1001 \div 7 = 143 \text{ a whole number}$$

$$1221 \div 7 = 174.428 \text{ not a whole number } X$$

$$1331 \div 7 = 190.142 \text{ not a whole number } X$$

$$1111 \div 7 = 158.714 \text{ not a whole number } X$$

$\therefore$  Tom's number is : 1001