

Name: \_\_\_\_\_

**YEAR 11 MINI-ASSESSMENT 6**

**HIGHER – TYPE OF NUMBER**

1. (a) Write 542000 in standard form. (1)
- (b) Write  $3.67 \times 10^{-3}$  as an ordinary number. (1)
- (c) Write the following numbers in order of size.  
Start with the smallest number.  
 $0.038 \times 10^2$     $3800 \times 10^{-4}$    380    $0.38 \times 10^{-1}$  (2)
- [4 marks]**
2. (a) Write 80 as a product of prime factors. (2)
- (b) Matt and Dan cycle around a cycle track.  
Each lap Matt cycles takes him 50 seconds.  
Each lap Dan cycles takes him 80 seconds.  
Dan and Matt start cycling at the same time at the start line.  
Work out how many laps they will each have cycled when they are next at the start line together. (2)
- [4 marks]**
3. One uranium atom has a mass of  $3.95 \times 10^{-22}$  grams.  
(a) Work out an estimate for the number of uranium atoms in 1 kg of uranium. (3)
- (b) Is your answer to (a) an underestimate or an overestimate?  
Give a reason for your answer. (1)
- [4 marks]**