Do your workings in the rear of the paper and write answers in the boxes provided

Task 1

List 3 examples of where we could use standard index form in real life. Try and make at least one of them an example for 'small numbers'

1_____

2_____

3_____

Task 2

When writing a number in standard index form I must stat with a number between _____ and _____ then multiply it by _____ for big numbers and _____ for small numbers

Task 3

Write the following large and small numbers in standard index form. An example is given below

$280000 = 2.8 \times 10^5$ (Just think where the decimal point started)

Ordinary Number	Standard Index Form
3500	
2100000	
300000000000	
512000	
2220	
0.023	
0.00000045	
0.00716	
0.000000000001	
Extension Questions	
3.1	
10	

Task 4

Write the numbers in 'ordinary form' below. Here is an example:

$3.4 \times 10^6 = 3400000$ or form small numbers $0.0056 = 5.6 \times 10^{-3}$

Standard Index Form	Ordinary Number
2.7×10^3	
1.34×10^6	
9.21×10^3	
1.4×10^8	
2.22×10^5	
3.4×10^{-3}	
1.94×10^{-5}	
1.11×10^{-10}	
Extension Questions	
$10(2.3 \times 10^3)$	
$\dfrac{1}{10}(3.5 \times 10^5)$	

Task 5

What is wrong with each of the calculations below?

23.7×10^{-2}	
$1.84 \div 10^2$	
1.56×100^4	
Extension Questions	
$2.5 \times 10^2 + 2.5 \times 10^2 = 2.5 \times 10^4$	

Task 6 - Extension

Research the idea of the reciprocal and 10^{-1} and write a couple of lines below to explain why we don't divide by positive powers of 10 to write 'small numbers' in standard index form

_____

_____