

ORDERING QUANTITIES BY MAGNITUDE

- Ordering quantities means arranging the numbers in the ascending or the descending order.
- Arranging the numbers in the ascending order means arranging them in the small to big
- Arranging the numbers in the descending order means arranging them from big to small
- The less than symbol is $<$ and the greater than symbol is $>$

Examples from past papers:

1	Write in order of size, smallest first, $\frac{5}{98}, 0.049, 5\%.$ <p style="text-align: right;"><i>Answer<.....<..... [2]</i></p>			
MS-1	0.049 < 5% < 5/98 o.e.	2	M1 for figs 51... seen after 0, SC1 for 2 correct entries	2

Explaining question number 1:

Note: Convert all the given numbers in their decimal form and then compare the numbers. Then arrange them from **small to big** in the decimal form [**As they have mentioned the words 'smallest first'**]. But while writing the final answer, write the numbers in the original form.

$$\frac{5}{98} = 0.051$$

$$0.0469$$

$$5\% = 0.05$$

The required answer is:

$$0.0469 < 0.05 < 0.051$$

Rewriting in the original form we get;

$$0.049 < 5\% < \frac{5}{98}$$

IGCSE PAST PAPER QUESTIONS:

1	Write in order of size, smallest first, $\frac{5}{98}$, 0.049, 5%. Answer<.....<..... [2]			
MS-1	0.049 < 5% < 5/98 o.e.	2	M1 for figs 51... seen after 0, SC1 for 2 correct entries	2

2	Write the numbers 0.5^2 , $\sqrt{0.5}$, 0.5^3 in order with the smallest first. Answer < < [2]			
MS-2	$0.5^3 < 0.5^2 < \sqrt{0.5}$	2*	M1 for 0.25, 0.7.... and 0.125 seen matched	

3	Write the following in order of size, smallest first. $\frac{\pi}{4}$ $\frac{1}{\sqrt{2}}$ $\frac{3}{4}$ $\sin 47^\circ$ Answer < < < [2]			
MS-3	$1/\sqrt{2}$, $\sin 47$, $3/4$, $\pi/4$	2*	M1 for correct conversion to decimals 0.78(53..) 0.70(71...) 0.75 0.73(13..)	

IGCSE PAST PAPER QUESTIONS:

4	Write the following in order of size, smallest first .	
	$\cos 100^\circ$	$\sin 100^\circ$
		$\tan 100^\circ$
	<i>Answer</i> < < [2]	
MS-4	tan100 , cos100, sin100	2* M1 for correct conversion to decimals - 5.67, - 0.174, 0.985 2sf or better SC1 all correct but reversed

MORE PRACTISE QUESTIONS AVAILABLE IN THE TOPIC WISE PAST PAPER SECTION UNDER ACENDING AND DESCENDING ORDER.

