

Order by Size

Model Answers

Write the following in order of size, smallest first.

$$(1.5)^{\frac{2}{3}}$$

$$\left(\frac{2}{3}\right)^{1.5}$$

$$\left(\frac{2}{3}\right)^{-1.5}$$

$$\left(-\frac{2}{3}\right)^{\frac{2}{3}}$$

Answer:

$$\left(\frac{2}{3}\right)^{1.5} \quad \left(-\frac{2}{3}\right)^{\frac{2}{3}} \quad \left(1.5\right)^{\frac{2}{3}} \quad \left(\frac{2}{3}\right)^{-1.5}$$



Question 2

Write the following in order of size, smallest first.

EXAcos100° DAP sin100° S P tan100° T C E

Answer:

$$\cos 100^{\circ} = -0.173$$

$$\sin 100^{\circ} = 0.984$$

$$\tan 100^{\circ} = -5.671$$

Order starting from the smallest:

$$tan 100^{\circ} < cos 100^{\circ} < sin 100^{\circ}$$

Write the following in order of size, smallest first.

$$\frac{1}{5}$$
 $\sqrt{0.038}$

$$\sqrt{0.038}$$

$$0.719^{5}$$

Answer:

19\% 0.719⁵
$$\sqrt{0.038}$$
 sin 11.4 1/5

Question 4

Write the following in order of size, smallestfirst.

0.47
$$\frac{8}{17}$$
 $\sqrt{0.22}$ $\tan 25^{\circ}$

Answer:XAM PAPERS PRACTICE

$$\tan 25 < \sqrt{0.22} < 0.47 < \frac{8}{17}$$

correct conversion to decimals 0.466, 0.469, 0.471

For this question, 1 < x < 2.

Write the following in order of size, smallest first.

$$\frac{5}{x}$$

$$\frac{5}{x}$$
 5x $\frac{x}{5}$ x-5

Answer:

$$x-5$$
 $\frac{x}{5}$ $\frac{5}{x}$ $5x$



Question 6

Write the following in order of size, smallest first

Answer:

$$2-\sqrt{3}$$
, $2-\frac{\sqrt{3}}{2}$, $\frac{2}{\sqrt{3}}$, $\sqrt{3}$



When 0 < x < 0.9, write the following in order of size with the smallest first.

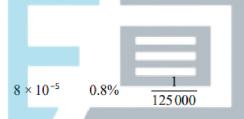
$$x^2$$

Answer:

$$x^2$$
, $\cos x^\circ$, x^{-1}



0.0008



Write the numbers above in order, smallest first.

Answer:

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1/125000, 8 x 10⁻⁵ , 0.0008, 0.8%



Write the following in order of size, smallest first.

$$\frac{\pi}{4} \qquad \frac{1}{\sqrt{2}} \qquad \frac{3}{4} \qquad \sin 47^{\circ}$$

Answer:

$$1/\sqrt{2}$$
, sin 47, $\frac{3}{4}$, $\pi/4$

Question 10

Rearrange the quantities in order with the smallest first.

$$\frac{1}{8}\%$$
, $\frac{3}{2500}$, 0.00126

Answer: XAM PAPERS PRACTICE

3/2500, 1/8, 0.00126