

1)

a) What is the relative error for $v = 12.25 \text{ m/s} \pm 0.25 \text{ m/s}$

b) What is the absolute error if the central value is 120 s and the relative error is 5%?

c) Which measurement is most precise and WHY?

1) $T = 7.5 \text{ s} \pm 0.2 \text{ s}$

2) $L = 10.0 \text{ m} \pm 0.2 \text{ m}$

3) $D = 5.6 \text{ cm} \pm 4\%$

2a) Find the centre and the radius in the following neighbourhoods. Draw the intervals. Express the intervals in other two ways.

a) $(-3,5)$

b) $-7 < x < -1$

3a) Simplify, using index laws:

$$\frac{(-3)^2 \cdot \left(-\frac{1}{3}\right)^2 \left[\left(\frac{1}{3}\right)^{-3}\right]^2 \cdot \left[\left(-\frac{2}{3}\right)^0\right]^{-2}}{(-3)^5 \cdot 3^{-2} \cdot (-3)^{-3} \left[\left(-\frac{1}{3}\right)^3\right]^{-1}} =$$

4a) Find and simplify using only radical properties:

b) a)

$$\left(\sqrt[3]{\sqrt{5}}\right)^5 \left(\sqrt[4]{5}\right)^3 =$$

cc c)

$$\frac{\sqrt[4]{abc^2} \cdot \sqrt[12]{a^3b^5c^2}}{\sqrt[6]{a^2b^2c}} =$$

5a) Express with integer denominator, (simplify your answer):

a) $\frac{(1 + \sqrt{2})^2 + 1}{\sqrt{2}}$

b) $\frac{3\sqrt{2} - 2\sqrt{3}}{6 + \sqrt{6}} =$

6a) Simplify: $\frac{3}{2}\sqrt[3]{40} - \frac{3}{2}\sqrt[3]{5} + \frac{5}{2}\sqrt[3]{320} - \frac{3}{2}\sqrt[3]{1080} + \sqrt[3]{\frac{135}{8}} =$

7a) Find x

a) $\log_9 \frac{1}{81} = x$

b) $\log_{\frac{1}{5}} x = -3$

8a)

a) Write the following as a logarithmic equation in base 10: $x = \frac{m}{n} \sqrt{p} \sqrt[3]{q}$

b) Simplify the following using logarithm properties: $\log(xy) - 2\log\left(\frac{x}{y}\right) =$

9a) Divide $4x^5 - 3x^3 + 5x^2 - 7$ by $2x^2 - 3x + 5$

Name:.....N°:.....course:....

1	2	3	4	5	6	7	8	9
1,5	1	1	1	1	1	1	1,5	1