

Practice Sig Fig Quiz

How many significant digits are in each of the following:

1. 75.006 Kg 5
2. 8650 m 3
3. 10.060 mm 5
4. 0.0030 ml 2
5. 7.670×10^3 g 4

Calculate the following and write the answers using significant digits:

6. $93.40 \text{ cm} + 100. \text{ cm} = 193.4 \text{ cm} = 193 \text{ cm}$
7. $(115 \text{ m})(.550 \text{ m})(40. \text{ m}) = 2530 \text{ m}^3 = 2500 \text{ m}^3$
8. $700. \text{ mm} - 0.055 \text{ mm} = 699.945 \text{ mm} = 700. \text{ mm}$
9. $566.52 \text{ m}^3 \div .092 \text{ m} = 6157.82 \text{ m}^2 = 6200 \text{ m}^2$
10. $46.5 \text{ cm} + 2.6 \text{ cm} + .0009 \text{ cm} = 49.1009 = 49.1 \text{ cm}$

Express the following in the proper scientific notation:

11. 905000 Km $9.05 \times 10^5 \text{ Km}$
12. 0.0004550 watts $4.550 \times 10^{-4} \text{ watts}$
13. $.0250 \times 10^{-4} \text{ m}^2$ $2.50 \times 10^{-6} \text{ m}^2$
14. $520.0 \times 10^{-5} \text{ L}$ $5.200 \times 10^{-3} \text{ L}$

Write the following in positional notation:

15. $3.420 \times 10^4 \text{ mm}$ 34200 mm
16. $1.600 \times 10^{-5} \text{ Pascal}$.00001600 Pascal

Calculate the following using significant digits and scientific notation

17. $(8.00 \times 10^4 \text{ Km})(2.5 \times 10^{-2} \text{ Km}) = 2.0 \times 10^3 \text{ Km}^2$
18. $(8.08 \times 10^5 \text{ m}^3) / (4.45 \times 10^6 \text{ m}) = 18157 \text{ m}^2 = 1.82 \times 10^5 \text{ m}^2$
19. $(2.8 \times 10^2 \text{ Km}) / (2.50 \times 10^2 \text{ hr}) = 1.12 \text{ Km/hr} = 1.1 \times 10^0 \text{ Km/hr}$
20. $(7.000 \times 10^2 \text{ m})(3.0 \times 10^6 \text{ m}) = 2.1 \times 10^9 \text{ m}^2$