

Math Review

You will not survive this unless your math skills are up to snuff. The purpose of this worksheet is to refresh your basic math and algebra skills. Do not rush through it. You may work together, but do not give away or accept answers. You should all be absolutely certain that you can do these problems. You also need to practice using your calculators correctly.

Algebra:

Solve the following:

1) $K = C + 273.15$ (solve for C) 2) $P \times V = n \times R \times T$ (solve for R)

3) $P \times V = n \times R \times T$ (solve for V) 4) $\frac{67w - y + 3}{6} = 2z$ (solve for w)

5) $C = \frac{(F - 32)}{1.8}$ (solve for F) 6) $\frac{R \times S}{T} = \frac{Y \times Z}{W}$ (solve for Y)

7) $\frac{R \times S}{T} = \frac{Y \times Z}{W}$ (solve for T)

8) $50.0 \times 4.18 \times (T - 23) = -62.7 \times 0.312 \times (T - 142)$

9) $\frac{n}{781.2} \times 100 = 23.71$

10) $\frac{0.113}{d} \times 100 = 76.2$

11) $\frac{11.16}{16.11} \times 100 = p$

12) $\frac{25.0}{25.0 + s} \times 100 = 28.1$

Simplify the following:

1) $x^2 \cdot x^4$ 2) $\frac{k^8}{k^3}$ 3) $a^{11} \cdot a^{-7}$

4) $\frac{w^{-4}}{w^{-7}}$ 5) $r^3 \cdot \frac{t^5}{r}$ 6) $(4m)^3$

7) $\left(\frac{1n}{2.14m}\right)^2$ 8) $a^2 \times \frac{p^{-2}}{f^2} \times \frac{d}{a^2} \times \frac{f^3}{p^{-2}} \times \frac{1}{d} \times \frac{w}{u^{-1}} \times \frac{n^2}{w}$