

Physics 112 Intro Quiz Review

Covert each of the following measurements to the given units

- 1) 94.5 dam = 9.45×10^{-7} Gm 0.000000945
- 2) 0.00423 m = 4.23×10^{-15} Tm 0.00000000000000423
- 3) 145 hm = 1.45×10^{13} nm 145000 000 000 00
- 4) 6450 km = 6450000 or 6.45×10^6 m
- 5) 0.54 cm = 5400 μ m
- 6) 45 pm = 4.5×10^{-14} km 0.000000000000045
- 7) 1350 Mm = 1.35×10^{11} cm 135000000000
- 8) 34 m = 34000 mm
- 9) 149 000 pm = 1.49×10^{-8} dam 0.000000149
- 10) 15 hm = 1.5×10^{-9} Tm 0.0000000015

Rearrange each of the following equations for the variable indicated

1) $F = \frac{wpy}{py}$ for w
 $\frac{F}{py} = w$

4) $A^2 = B^2 + C^2$ for B
 $A^2 - C^2 = B^2$
 $\sqrt{A^2 - C^2} = B$

2) $\frac{7x+p}{f} = 10$ for p
 $7x+p = 10f - 7x$
 $p = 10f - 7x$

5) $s = \frac{(u+v)t}{2}$ for u
 $2s = (u+v)t$
 $2s = ut + vt - vt$
 $2s - vt = ut$

3) $6u = \frac{p}{2}(5y - 8q)$ for y
 $12u = p(5y - 8q)$
 $12u = 5py - 8pq + 8pq$
 $\frac{12ut + 8pq}{5p} = \frac{5py}{5p}$
 $\frac{12ut + 8pq}{5p} = y$

6) $\frac{pv}{t} = nR$ for t
 $\frac{pv}{nR} = t$