

Unit Conversions Practice

Complete the following conversions. Write your answer in the correct number of SigFigs!

1. Convert 84 kilometers per hour to feet per minute (0.621 miles = 1km, 1 mile = 5,280 feet)

$$\frac{84 \text{ km}}{1 \text{ hr}} \left[\frac{0.621 \text{ mi}}{1 \text{ km}} \right] \left[\frac{5280 \text{ ft}}{1 \text{ mi}} \right] \left[\frac{1 \text{ hr}}{60 \text{ min}} \right] = 459.0432 \frac{\text{ft}}{\text{min}}$$

$\frac{460 \text{ ft}}{\text{min}}$ 2SF

2. Convert 27 months to fortnights (there are 14 days in a fortnight and ~30 days in a month)

$$27 \text{ months} \left[\frac{30 \text{ days}}{1 \text{ month}} \right] \left[\frac{1 \text{ fortnight}}{14 \text{ days}} \right] = 57.857 \text{ fortnights}$$

58 fortnights 2SF

3. If 1.0 fot = 5.5 vum, 10 sop = 3.0 tuz, 4.5 bef = 3.0 tuz, and 9.5 fot = 2.0 bef, how many vum are in 4.0 sop?

$$4.0 \text{ sop} \left[\frac{3.0 \text{ tuz}}{10 \text{ sop}} \right] \left[\frac{4.5 \text{ bef}}{3.0 \text{ tuz}} \right] \left[\frac{9.5 \text{ fot}}{2.0 \text{ bef}} \right] \left[\frac{5.5 \text{ vum}}{1.0 \text{ fot}} \right] = 47.025 \text{ vum}$$

47 vum 2SF