

Name: _____ Date:

For problems 1-2, please use dimensional analysis and these conversion factors:

pallet = 45 bundles

1 bundle = 32 cases 1 case = 12 cans

1 can = 218.4 mL

- 1. How many mL of apple juice does the company need to make to fulfill an order for 2.5 pallets?
- 2. If 46,680 mL of juice are produced, how many cases of juice can be made?
- 3. Please perform the following conversions.

a) 15.60 cm = m

b) 41.0 kg =______ μg

- 4. A speed limit sign in Indiana reads 60 miles per hour. Convert these units to meters per second. (note: 1 mile = 1.61 km)
- 5. Convert the following speeds:

a) $25 \text{ m/s} = \underline{\hspace{1cm}} \text{km/h}$

b) $24.3 \text{ m/s} = \underline{\qquad} \text{cm/h}$

c) 45 km/h = m/s

d) 24 cm/s = _____ m/min

- 6. A car drove for 43 minutes at a speed of 65 km/h. How many kilometers did it go? (Note: both time units must be the same, so one of them needs to be converted!)
- 7. The speed of an airplane was 720 km/h. How long would it take the plane to fly 245,690 m? (Note: both distance units must be the same, so one of them needs to be converted!)