

## UNIT 4 – MEASUREMENT – PART 2 - ANSWERS

### ASSIGNMENT 1 – VOLUME

- 1) a) 12 960 in<sup>3</sup> b) 7.5 ft<sup>3</sup>
- 2) Volume of original box = 72 in<sup>3</sup>  
Volume of cube = 64 in<sup>3</sup>  
NO, the paper clips won't fit as the cube is smaller than the original box.
- 3) 4.79 ft<sup>3</sup> → 5 ft<sup>3</sup>
- 4) a) 0.11 yd<sup>3</sup>  
b) 3.52 yd<sup>3</sup>

### ASSIGNMENT 2 – CAPACITY

- 1a) 22.8 fl oz (US)
- b) 1.75 qt
- c) 25.8 L
- d) 3.18 qt(US)
- e) 54.56 fl oz (UK)
- f) 7.55 L
- 2) 11.7 gal (US)
- 3) 10 gal (UK)
- 4) 852.3 mL
- b) 1849.1 mL
- c) 30 gal (US)

### ASSIGNMENT 3 – MASS/WEIGHT IN THE IMPERIAL SYSTEM

- 1a) 54 oz = 3 lb 6 oz
- b) 15 lb = 240 oz
- c) 648 oz = 40 lb 8 oz
- 2) 12 lb 3 oz
- 3) 17 lb 8 oz
- 4) 5.3 → 6 baskets

### ASSIGNMENT 4 – MORE MASS/WEIGHT IN THE IMPERIAL SYSTEM

- 1) a) 6790 lb = 3.395 tn
- b) 5.45 tn = 10 900 lb
- c) 192 000 oz
- d) 2.1 tons
- 2) Total weight is 3135 lb or 1.5675 tn so it is too heavy.
- 3) 28 pieces
- 4) 5600 lb, 89 600 oz
- 5) 5 trips
- 6) 1.0875 tons

### ASSIGNMENT 5 – WEIGHT AND COSTS IN THE IMPERIAL SYSTEM

- 1) a) \$1.67 / lb
- b) \$0.10 / oz
- c) \$1.20 / 12 oz
- 2) 2.5 lb jar for \$5.99 is the best buy
- 3) \$1.29/oz
- 4) \$0.08/ lb
- 5) \$2.20/lb

### ASSIGNMENT 6 – MASS/WEIGHT IN THE METRIC SYSTEM

- 1) a) 2.8 kg = 2800 g
- b) 125 g = 0.125 kg
- c) 3.6 t = 3600 kg
- d) 654 kg = 0.654 t
- 2) 414 g
- 3) 5.75 t
- 4) 3 kg

### ASSIGNMENT 7 – WEIGHT CONVERSIONS BETWEEN MEASURING SYSTEMS

- 1) a) 67.5 kg = 148.5 lb
- b) 125 lb = 56.8 kg
- c) 3.6 t = 7920 lb
- d) 30 000 lb = 13.6 t
- 2) 149.6 lb
- 3) 3515.4 g or 3518.5 oz
- 4) 21.2 oz
- 5) \$4.43/lb
- 6) 200 g for \$3.85 is better buy
- 7) \$16.58/kg

### ASSIGNMENT 8 – CONVERSIONS BETWEEN MEASUREMENTS OF VOLUME AND WEIGHT

- 1) 2461.8 bu
- 2) 22.9 t
- 3) \$5.33/bu
- 4) a) 0.609 t
- b) 609 kg
- c) 1339.8 lb

### ASSIGNMENT 9 – WORKING WITH TEMPERATURE

- 1) a) 35°C = 95°F
- b) -8°C = 17.6°F
- c) 167°C = 332.6°F
- d) 21°C = 69.8°F
- e) -40°C = -40°F
- f) 202°C = 395.6°F
- 2) a) -20°F = -28.9°C
- b) 80°F = 26.7°C
- c) 375°F = 190.6°C
- d) 2°F = -16.7°C
- e) 0°F = -17.8°C
- f) -2°F = -18.9°C
- 3) 176.7°C
- 4) 104°F – not normal
- 5) 48.2°F – It is safe.
- 6) -19°C = -2.2°F 22°C = 71.6°F