Practice test 1

Answer the following questions without the use of a calculator. Use the review links where needed to help you.

1. Change 1/64 to a decimal. Express the answer to the nearest thousandth.

$\frac{1}{64}$ → $64\overline{)1.0000}$ = 0.0156; − 64, 360, − 320, 400, − 384 → 0.0156 = 0.016

2. A patient weighed 55.4 kilograms (kg) before getting ill. After a lengthy recovery, the patient weighed 49.7 kg. How much weight did the patient lose?

55.4 − 49.7 = 05.7 → Patient lost 5.7 kg

3. The health care provider ordered 1.5 tablets of a medication to be given to a patient four times a day. How many tablets were prescribed in total for one day?

1.5 tab × 4 = 6.0 → 6 tablets prescribed in total for one day

4. Solve for x in the following. Round to the nearest tenth. 500:3 = 350:x

500:3 = 350:x

$\frac{3}{500} \times \frac{350}{x}$

$= \frac{1050}{500}$ → $500\overline{)1050.0}$ = 2.1; − 1000, 500, − 500, 0 → x = 2.1

5. A low-fat cheese has 40 calories (cal) per 30 mL. A patient eats 80 mL of the low-fat cheese. How many cal has the patient eaten? Express the answer as a whole number.

$\frac{40\text{ cal}}{30\text{ mL}} \times \frac{80\text{ mL}}{1}$

$= \frac{3200}{30}$ → $30\overline{)3200.0}$ = 106.6; − 30, 200, − 180, 200, 180 → 106.6 ~ 107 → The patient has eaten 107 calories

6. A patient was able to drink 85% of a 1 litre (L) bottle of an X-ray prep. How many mL did the patient drink? Express htis volume in L as well.

85% = 0.85 1000mL = 1L

1000 mL
× 0.85
50.00
+ 8000.00
850.0 mL or 0.85L.

→ The patient drank 850mL or 0.85L

7. Convert the following weight to kg. 135 pounds

1 kg = 2.2 lbs.

135 lbs ÷ 2.2 →

$$22\overline{)1350.0}$$

61.36

132
30
- 22
80
- 66

→ 61.36 ≈ 61.4 kg

8. A wound measures 4.2 cm in length. Express this distance in mm and metres.

1 cm = 10mm = 0.01m

∴ 4.2cm × 10mm = 42mm

4.2cm × 0.01m = 0.042m

9. Convert the following time to international/military time (24 hour clock) - 9:46 PM

9:46 pm → 2146

10. Convert the following weight into grams and pounds. 1.8 kg

1 kg = 1000 g

1.8
× 1000
1800.00 g

= 1800 g

1 kg = 2.2 lbs

1.8
× 2.2
36
+ 360
3.96

= 3.96 lbs

Practice test 2

Complete each calculation without a calculator.

1. Convert the following weight in pounds to kg - 9 lb, 9 oz.; express the weight in both kg and grams.

1 oz = 30g 1kg = 2.2lbs

9lbs + 9oz

4.09
22 | 90.00
-88
200
198

→ 4.09 kg or 4090 g

30
× 9
270g

4090g
+ 270g
4360g ≈ 4.4kg

2. Convert the following length to centimetres - 16.2 in

1 inch = 2.5cm

16.2 inch
× 2.5cm
81
324
40.50

→ 16.2 in. = 40.5 cm

3. An IV started at 0550 is to be completed in 5 hr 10 min. Determine the completion time and express as international time (24 hour clock).

0550h
+ 510m
1060 ← 60 min/h
= 1100

→ Completed at 1100

4. A patient drank 90 millilitres (mL) of a glass of apple juice. This was 75% of the full amount. How many mL was the full amount of apple juice?

$\frac{90mL}{1} \times \frac{3}{4}$ → Cross multiply

$= \frac{90 \times 4}{1 \times 3}$

$= \frac{360}{3} = 120mL$

→ 120 mL was the full amount

5. Solve for x in the following.
$11:121 = 3:x$

$x = \frac{121}{11} \times \frac{3}{1}$

$= \frac{363}{11}$

$x = 33$

∴ $x = 33$

6. If 100 grams (g) of ice cream contain 20 g of fat, how many g of fat are there in 300 g of ice cream?

$x = \frac{300g}{1} \times \frac{20g}{100g}$

$= \frac{6000}{100} g$

$= 60 g$

→ There are 60g of fat in 300g of ice cream

7. A patient must take four tabs per day for 14 days. How many tablets should the pharmacy supply to fill this order?

$\frac{4 \text{ tabs}}{1 \text{ day}} \times \frac{14 \text{ days}}{1}$ → 56 tablets to fill the order.

$= 56$ tablets

8. Change the following to a decimal. 5/18

$5/18 =$ $18\overline{)5.000}$ = 0.2777

- 36
140
- 126
140
- 126
126

0.2777 → 0.278

9. Perform the indicated operation with decimals. 0.46×0.17

$$\begin{array}{r} 0.46 \\ \times\ 0.17 \\ \hline .0322 \\ .0460 \\ \hline 0.0782 \end{array}$$

→ 0.0782

10. A patient weighed 75.4 kilograms (kg) in February. In March the patient gained 1.6 kg. In April the patient gained 2.2 kg. How much did the patient weigh in April?

$$\begin{array}{r} 75.4 \\ 1.6 \\ +\ 2.2 \\ \hline 79.2 \end{array}$$

→ Patient weighed 79.2 kg in April

Practice entry test 3

Complete each calculation without using a calculator.

1. A patient is brought into the emergency department with a body temperature of 35.6° C. If the normal body temperature is 37° C, how many degrees Celsius below normal is the patient's temperature?

37.0 °C
- 35.6 °C
1.4 °C

→ 1.4 °C below normal

2. One dose of vaccine is 1.25 mL. How many mL of vaccine is needed to vaccinate 55 patients in a clinic?

1.25 mL
× 55 patients
6.25
6 25 0
68.75

→ 68.75 or 68.8 mL are needed

3. A medication vial holds 7 millilitres (mL) of medication. If 1.4 mL are withdrawn from the vial, how many mL are left in the vial?

67.0
- 1.4
5.6

→ 5.6 mL are left in the vial

4. If 5 millilitres (mL) of a solution contains 4 mL of water, how many mL of water are in 20 mL of solution?

$\frac{20\text{mL sol}}{1} \times \frac{4\text{mL water}}{5\text{mL sol}}$ → 16 mL of water are in the solution

$= \frac{80}{5} = 16\text{mL}$

5. The nurse is instructed to administer 500 mL of a solution every 8 hours (hr). How many hr will be needed to administer 1 500 mL of solution?

$x = \frac{1500\text{mL}}{1} \times \frac{8\text{h}}{500\text{mL}}$

$= \frac{12000}{500}$

$= 24$

→ 24 hours will be needed

6. A patient has received 45% of a 500-mL bag of intravenous (IV) solution. How many mL of IV solution has the patient received?

45% = 0.45

$$\begin{array}{r} 500 \\ \times \quad 0.45 \\ \hline 25.00 \\ 200.00 \\ \hline 225.00 \end{array}$$

→ Patient has received 225 mL

7. Convert the following weight to kg and g - 6.4 lb

1 kg = 2.2 lbs

$$22\overline{)64.00} \quad \begin{array}{r} 2.90 \\ -44 \\ \hline 200 \\ -198 \\ \hline 20 \end{array}$$

→ 2.9 kg or 2900 g

8. Convert the following time to international time (24 hour clock). 10:19 PM

10:19 PM = 2219

9. Convert the following to cm and m - 34 mm =

10 mm = 1 cm = 0.01 m

$$\frac{34\text{mm}}{1} \times \frac{1\text{cm}}{10\text{mm}} = 3.4\text{ cm}$$

$$\frac{34\text{mm}}{1} \times \frac{1\text{m}}{1000\text{mm}} = \frac{34}{1000} = 0.034\text{m}$$

→ 3.4 cm & 0.034 m

10. Solve for x.

$$\frac{16}{40} = \frac{x}{55}$$

$$x = \frac{16}{40} \times \frac{55}{1} \rightarrow \begin{array}{r} {}^{3}16 \\ \times 55 \\ \hline 80 \\ +\,400 \\ \hline 880 \end{array} \rightarrow \frac{880}{40} \rightarrow 40\overline{)880} \quad \begin{array}{r} 22 \\ -80 \\ \hline 80 \\ -80 \\ \hline 0 \end{array} \rightarrow x = 22$$