

UNIT 3 – MEASUREMENT PART 1 - ANSWERS

ASSIGNMENT 1 – THE METRIC SYSTEM

Part A.

- 1) 31 mm 2) 68 cm 3) 2 km 4) 4 m 5) 54 mm 6) 160 cm 7) 8 m
8) 125 km 9) 18 m 10) 67 m 11) 26 mm 12) 75 cm 13) 10 000 m

Part B

- 1) 38 000 m 2) 40 000 cm 3) 0.758 m 4) 520 000 mm 5) 8500 mm
6) 246 cm 7) 1.55 m 8) 0.0016 km 9) 1.245 km 10) 2470 mm
11) 1650 cm 12) 0.0025 km 13) 300 m 14) 670 cm 15) 45.6 dam 16) 9.2 dm
17) 780 km 18) 110 000 dm

Part C

- 1) 2.65 cm 2) Less, only 6 steps are required. 3) Stack has 41 (41.7) tiles - she has enough.
4) a) 104 m b) 10 400 cm

Part D

- 1) 14.7 cm, 147 mm 2) 6.8 cm, 68 mm 3) 3.3 cm, 33 mm 4) 11.3 cm, 113 mm
5) 7.8 cm, 78 mm

ASSIGNMENT 2 – IMPERIAL SYSTEM

Part A

1) $A = \frac{8}{16}$ $B = 1 \frac{2}{16}$ $C = 1 \frac{15}{16}$ $D = 2 \frac{13}{16}$

$E = 3 \frac{8}{16}$ $F = 4 \frac{10}{16}$ $G = 5$ $H = 5 \frac{5}{16}$

2) a) $5 \frac{11}{16}$ b) $\frac{4}{16}$ or $\frac{1}{2}$ c) $3 \frac{14}{16}$ or $3 \frac{7}{8}$ d) $1 \frac{15}{16}$

- 3) a) 456 in b) 704 yd. c) 39 600 ft. d) 6 ft. 4) 12 panels

Part B

- 5) a) 23 ft b) 120 in c) 38 ft d) 36 966 ft e) 317 400 in
6) 46 145 paces 7) 740 boards 8) 15 ft 4 in or 184 in remaining
9) 46 geraniums 10) 30 feet 2 inches or 30.2 ft → NO! Too big.

Part C

- 11) a) 18.75 ft b) 3 in c) 14 520 ft d) 7920 yd

ASSIGNMENT 3 – CONVERTING MEASUREMENTS BETWEEN SYSTEMS

- 1) a) 20.32 cm b) 15.29 km c) 22.86 m d) 20.42 m e) 731.52 cm
f) 10.63 in g) 4.92 ft. h) 76.44 mi i) 368.3 cm j) 1.80 ft.

2) 5959.1 m

3) 567.6 ft. and 229.7 ft.

4) 6.2484 m → Too long for the garage.

5) 385.3 mi

6) 3.83 yd, \$37.50

7) 3 in

8) 144.78 cm → Yes, it will fit.

ASSIGNMENT 4 – METRIC AND IMPERIAL ESTIMATION

These are ONLY examples of typical answers. Other reasonable answers should be expected.

Item	Metric	Imperial
Length of a Translink bus	m	ft
Length of a \$20 bill	cm	in.
Height of a 1-story building	m	ft
Width of your pencil	mm	in.
Size of your big screen TV	cm	in.

Item	Metric	Imperial
Length of a your desk	2 m	5 ft
Length of a pencil	20 cm	6 in.
Height of a flagpole	10 m	30 ft
Width of an eraser	2 cm	1 in.
Distance from Surrey to Vancouver	40 km	25 mi

ASSIGNMENT 5 – PERIMETER

1a) 53.6 cm b) 43.5 cm c) 7.6 m 2) 780 cm 3) 122 ft 4) 75 ft

ASSIGNMENT 6 – CIRCUMFERENCE

1a) 12 ft b) 75.4 ft for both 2a) 21.05 cm b) 116.24 mm 3) 66.6 m
4a) 138.2 cm b) 3 whole cakes 5) 14.3 m 6) 21 in.

ASSIGNMENT 7 – AREA

1) 17.67 cm² 2) 14 102.6 m² 3) 187 in²

ASSIGNMENT 8 – MORE AREA

1) 84.51 yd² 2) 338 988 ft² 3a) 3.86 m and 3.28 m b) 12.66 m² c) \$582.11

ASSIGNMENT 9 – SURFACE AREA

Part A 1) 2474 in² 2) 113.9 cm² 3) 530.9 cm² 4) 1400 in²

Part B 1a) sketch b) 3888 in² 2) 10 080 in² 3) a) sketch b) 149.3 in²
4) 14.7 in² 5) 48 ft²