Year 7 Mathematics
Mini-Test
Perimeter, Area and Shapes

Baldivis Secondary College

Resource Section: one A4 page of notes and calculator allowed

Name: Solutions

Time: 25 min Class: _____ /20 marks

Full working out must be shown to get full marks.
Don't forget to add all appropriate units. Attempt all the questions.

Part A – Perimeter — 8 marks

Question 1: Convert the following units. [3 marks]

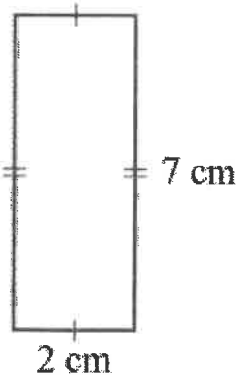
1013 mm = 101·3 cm ✓ Answer

0.5 km = 500 m ✓ Answer

320 m = 32,000 cm ✓ Answer

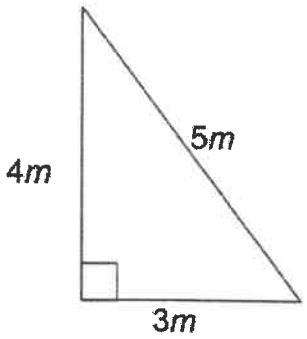
Question 2: Find the perimeter of the following shapes. *Make sure to include the correct units.*
[1,1,1,2 = 5 marks]

a)



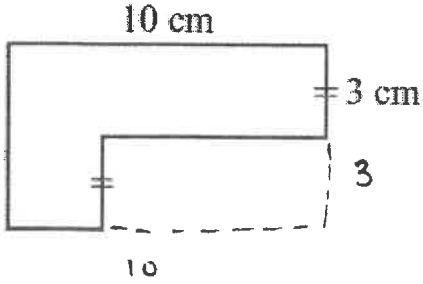
7+7+2+2
= 14 + 4
= 18cm ✓ Answer

b)



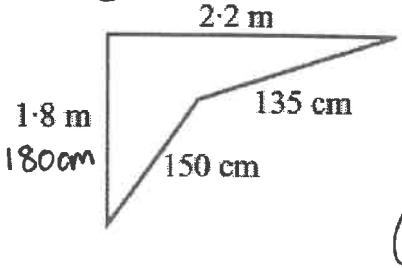
3+4+5
= 12m ✓ Answer

c)



10 + 10 + 3 + 3
= 20 + 6
= 26cm ✓ Answer

d)



✓ conversion
220cm

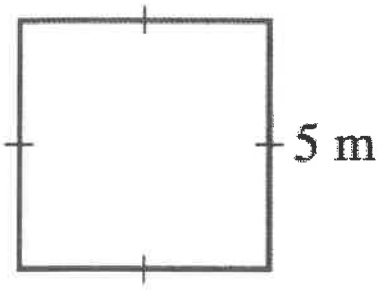
220
180
150
135
685cm

✓ Answer or 6·85 m

Part B - Area — 6 marks

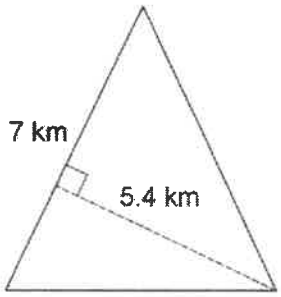
Question 3: Find the area of the following shapes. *Make sure to include the correct units.* [2 marks]

a)



$5 \times 5 = 25 m^2$ ✓ ANSWER

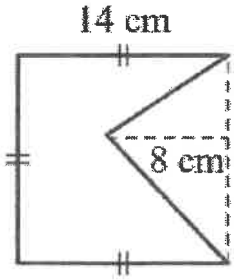
b)



$\frac{1}{2}(7 \times 5.4) = 18.9 km^2$ ✓ Answer

Question 4: Find the area of the composite shapes. *Make sure to include the correct units.* [4 marks]

a)

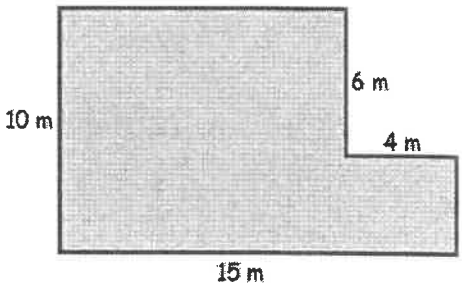


$14 \times 14 = 196 cm^2$ ✓ Totals

$\frac{1}{2}(14 \times 8) = 56 cm^2$

$140 cm^2$ ✓ Answers

b)



$10 \times 15 = 150$ ✓ Totals

$6 \times 4 = 24$

$126 m^2$ ✓ Answers

Part C – Worded Questions

6 marks

Question 5: A rectangular swimming pool is 5 m × 8 m. [1, 2, 1, 2 = 6 marks]

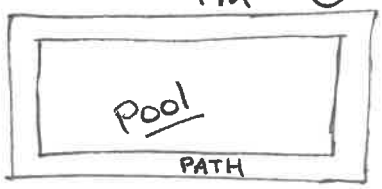
a) What is the area of the swimming pool?

$5 \times 8 = 40 m^2$ ✓ Answer

$-\frac{1}{2}$ - no 'cm²'

The swimming pool is surrounded by a path that is 1 m wide.

b) What are the dimensions of the swimming pool including the path? *Draw a labelled picture*



✓ Answer ✓ Answer

c) What is the area of the swimming pool including the path?

$9 \times 6 = 54 m^2$ ✓ Answer

$-\frac{1}{2}$ - no 'cm²'

d) If the pool fence panels only came in 2m lengths, how many fence panels will we need to fence around outside the path?

✓ Total

$9+9+6+6 = \frac{30m}{2} = 15$ panels ✓ Answer