

Year 11 Essentials
Mini Test 1.3
Rates, Perimeter and Area

Resources allowed: Calculator and 1 x A4 page one side

Name: Answers

Show all working out for full marks

Total:

20 /20

1. What unit of measurement would you use to measure the following things [3]

a. Flow rate of a hose?

Litres/minute ✓

b. Speed of a bird flying?

Kilometres/hour ✓

(3)

c. Swimming speed of a human?

Metres/minute ✓

2. If you have a 2.5m piece of wood, and you needed 6 pieces cut, **estimate** how long should each piece be?(nearest 10cm) [2]

$$40 \times 6 = 240 \text{ cm} \quad \therefore \underline{40 \text{ cm approx}}$$

(2)

3. If a room is 6.2 metres long, and 4.8 meters wide, **estimate** how big is the room is to the nearest square meter? (hint- draw a diagram and don't give exact answer) [3]

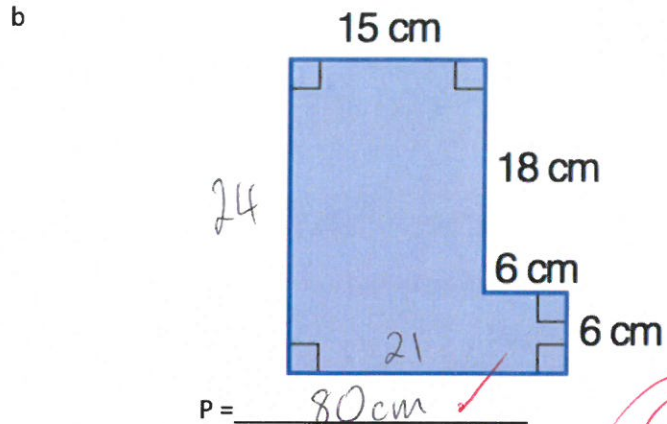
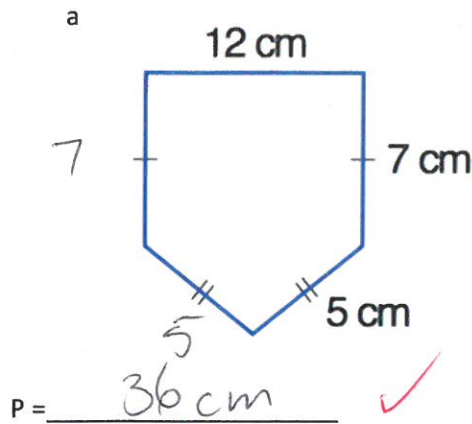
$$6 \text{ m} \times 5 \text{ m} = 30 \text{ m}^2$$

(3)

(8)

4. Find the perimeter of the following shapes

[2]



5. Use the following table to convert these imperial units to SAE

[8]

IMPERIAL	METRIC
1 inch	2.54cm
1 foot	30.4cm
1 yard	91.44cm
1 mile	1.609km

a. 30 feet to meters

$$(30 \times 30.4) \div 100 = 9.12 \text{ m}$$

b. 40 inches to centimetres

$$40 \times 2.54 = 101.6 \text{ cm}$$

c. 65 metres to yards

$$65 \div 0.9144 \text{ m} = 71.08 \text{ yd}$$

d. 60 miles to Kilometres

$$60 \times 1.609 = 96.54 \text{ mi}$$

6. If 1 square foot is equal to 0.093m², how big is a 2500 square foot house in m²? [2]

$$2500 \times 0.093 = 232.5 \text{ m}^2$$

(12)