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| Name: | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | Date: *\_\_\_\_\_\_\_\_\_\_\_* |
| Description: pact jpg1 | **Mathematics Essential**  **Test 2, 2015**  **Topics – Linear measurement & Area** | | 55  = % |
| **Total Time:** | ***60*** *minutes* |  | |
| **Total Reading:** | *5**minutes* |
| **Total Working:** | *55**minutes* |
| **Weighting:** | *5% of the year.* |
| **Equipment Allowed:** | *Calculator* |
| ***You must include all working out to receive full marks*** | | | |
| **CALCULATOR ASSUMED** | | | |

1. **(4 marks: 1, 1, 1, 1)**

Convert the following linear measurements.

1. 58.6 cm to mm **b)** 87.2 mm to cm
2. 10.2 km to m **d)** 76.4 cm to m
3. **(3 marks: 1, 1, 1)**
4. Estimate the height of the classroom door.
5. What unit of measurement would you use to find the length of your desk?
6. What unit of measurement would you use to find the length of the school oval?
7. **(2 marks)**

Convert these lengths to metres and then state which is longest.

0.005 km 6.5 m 550 cm 7880 mm

1. **(4 marks: 2, 2)**
2. Peter has a 2.5 m length of wood that he cuts into five equal lengths. State the length of each piece in cm.
3. If a length of timber is 1.2 m how many pieces of timber are needed to build a square frame that has a perimeter of 6 m?
4. **(6 marks: 1, 2, 1, 2)**

***1 inch is equal to 25mm.***

1. How many mm are there in 6 inches?
2. Yesterday 550 mm of rain fell. How many inches of rain is this?

***1 mile is equal to 1600m*.**

1. A mile can be divided into 8 furlongs. How many metres is a furlong?
2. How many furlongs in 4800 m?
3. **(4 marks: 1, 1, 2)**

***In the old system of measurement: 12 inches = 1 foot and 3 feet = 1 yard***

1. Convert 160 inches to feet.
2. Convert 27 feet into yards.
3. How many feet and inches in 2.5 yards?
4. **(10 marks: 2, 2, 4, 2)**

Area = length × width

Area = 5 × 56

Area = 280 m2

5 m

56 m

56 m

Area = 280 m2

Find the perimeter and area of the shapes below:

1. 6.5 cm **b)**

7.8 mm

3.3.mm

4.2 cm

6.9 mm

**c) d)** A 4cm square.

4.5 m

7.8m

2.1 m

8.5 m

1. **(5 marks: 1, 1, 1, 2)**

Convert the following to the units indicated

1. 16 cm² to mm² **b)** 12 m² to cm²
2. 176000 m² to km² **d)** 970 cm² to km²
3. **(3 marks: 1, 1, 1)**

Sue wishes to paint a wall that measures 4.3m by 7.1 m.

1. What area is to be painted?
2. 1 litre of paint covers 4 m². How much paint will she need?
3. Paint costs $32.90 per metre. How much will the paint cost?
4. **(6 marks: 3, 3)**

Areas of land are often measured in hectares. A hectare is 100m by 100m.

1 acre = 4.047 m².

1. How many acres are in 3 hectares?
2. How many hectares are in 30 acres?
3. **(8 marks: 4, 2, 2)**
4. Peter owns two blocks of land. One is 126 m by 92 m and the other is 177 m by 56 m. Which is the bigger block of land?
5. He decides to fence the bigger block of land. How many metres of fence will there be?
6. If fencing costs $12.50 per meter how much will it cost him to fence the bock?