# Mathematics Essential

# Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Task 1.2 – Unit 1

**Assessment type:** Response - Skills

**Conditions:**

Time for the task: 15 minutes

In class, calculator permitted

**Marks:** 16 marks \_\_\_\_\_\_\_\_\_\_\_\_\_\_/16

**Task weighting:**

2% of the school mark for this unit

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Round the following to the nearest 5 cents  
 a) $23.77 b) $38.98

\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_

2. a) how many cm in b) How many m in   
 5.6m 2.31km

\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_

3. a) You are riding your bike at 14km/hr, how far would you travel in 4 hours?

b) How long would it take for you to travel 63km?

4. Give the answer to   
a) 10% of 88kg b) 150% of 88kg

\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_

c) 5 x ((5 x 5) – 5) d) (8 x (3 + 6)) ÷ 4

\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_

5. The following appliances use this amount of energy (electricity) per hour.

|  |  |
| --- | --- |
| Appliance | Energy – Watts / hour |
| Air Conditioner | 1600 |
| Computer (desk) | 450 |
| LCD TV | 250 |

a).How much energy is consumed if they are all left on all night (9 hours)?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b) How long does it take for the Air conditioner to use 14 kilowatts (1kw = 1000 watts)?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c) During a 24 hour period the Air conditioner is on for 13hrs, the TV is on for 7hrs and the computer is left on the whole time. How much energy has been consumed?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# Mathematics Essential **Solutions**

## Task 1.2 – Unit 1

**Assessment type:** Response - Skills

**Conditions:**

Time for the task: 15 minutes

In class, calculator permitted

**Marks:** 16 marks \_\_\_\_\_\_\_\_\_\_\_\_\_\_/16

**Task weighting:**

2% of the school mark for this unit

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Round the following to the nearest 5 cents  
 a) $23.77 b) $38.98

**\_$23.75\_\_\_\_✓ \_$39.00\_\_\_✓**

2. a) how many cm in b) How many m in   
 5.6m 2.31km

**\_560cm\_\_\_✓ \_2 310m\_✓**

3. a) You are riding your bike at 14km/hr, how far would you travel in 4 hours?  
  
**56 km ✓**

b) How long would it take for you to travel 63km?

**4.5km ✓**

4. Give the answer to   
a) 10% of 88kg b) 150% of 88kg

**\_8.8kg\_\_\_✓ \_\_132kg\_\_\_\_ ✓**

c) 5 x ((5 x 5) – 5) d) (8 x (3 + 6)) ÷ 4

**\_100\_\_\_\_\_ ✓ \_18\_\_\_\_\_\_ ✓**

5. The following appliances use this amount of energy (electricity) per hour.

|  |  |
| --- | --- |
| Appliance | Energy – Watts / hour |
| Air Conditioner | 1600 |
| Computer (desk) | 450 |
| LCD TV | 250 |

a).How much energy is consumed if they are all left on all night (9 hours)?

**\_20700w\_\_\_\_ ✓✓**

b) How long does it take for the Air conditioner to use 14 kilowatts (1kw = 1000 watts)?

**\_8.75hrs or 8hrs 45 min\_ ✓✓**

c) During a 24 hour period the air conditioner is on for 13hrs, the TV is on for 7hrs and the computer is left on the whole time. How much energy has been consumed?

**\_33350w\_\_\_ ✓✓**