Name:	Answers			Date:			
Class:							
STATE OF THE PARTY	Year 11 Essential Mathematics 2018 Mini-Test 1.6 Topic – Units of Energy – Practical Applications We				/ 13		
Baldivis Secondary College			We	ighting:	1%		
Total Time:	15 minutes						
Weighting:	1%						
Equipment:	To be provided by the student: Pen, pencil, ruler,1 double sided A4 page of notes, scientific						

Full working out must be shown to get full marks. Attempt all questions.

Question 1 Convert the following: a) 5 kW to W b) 2670 W to kW c) 589 W to kW d) 4.23 kW to W 5×1000 = 5000 W = 2.67 kW = 0.589 kW = 4230 W(1 Mark for each covered Number)

Question 2

3 marks

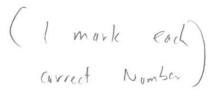
Find the energy used by:

a) 850 W washing machine used for 2 hours

b) 100 W laptop used for 4 hours, 30 minutes

c) 350 W electric blanket used for 45 minutes

$$0.35 \times \frac{3}{4} = 0.2675 \text{ kWL}.$$



While preparing breakfast, Terry used a 1520 W toaster for 12 minutes, a 2200 W kettle for 6 minutes, and a 300 W blender for 3 minutes.

a) Which appliance used the most energy? Support your answer with reasoning.

Question 4

5 marks

a) Fill in the missing information on this power bill.

Supply period: 09 Feb 2018 - 12 Apr 2018	Previous meter reading	Current meter reading	Units imported (kWh)	Units exported (kWh)
Anytime usage	37002	37872	870	
New charges				
Home Plan (A1) tariff Charge period: 09 Feb 2018 - 12 Apr 2018	Units	Unit of measure	Unit price (cents)	Amount
eConnect				

Supply charge

Residential Anytime consumption

870.0000 kWh 24.0673 63 days 86.2780

\$54.36

209.39

Plus GST @ 10.00%

Total new charges

\$ 290.13

b) What is the average daily use of energy during the billing period?

(I mark each correct piece of information)