SEMINAR 6 Application Activity

The website <http://www.eren.doe.gov/consumerinfo/energy_savers/appliancesbody.html> includes the typical wattages for many common household appliances. Using the information found on the site, answer the following questions:

1. (A) Record the information from the website for the appliances listed (1 point).

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| --- | --- | --- | --- |
| **Question** | **Points Possible** | **Points Earned** | **Comments** |
| Refrigerator | .2 |  |  |
| Computer and monitor | .2 |  |  |
| Dishwasher | .2 |  |  |
| Microwave | .2 |  |  |
| Television | .2 |  |  |
| Total | 1 |  |  |

(B) Calculate the average energy use in kilowatt-hours for each appliance (3 points).

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| --- | --- | --- | --- |
| **Question** | **Points Possible** | **Points Earned** | **Comments** |
| Refrigerator | .6 |  |  |
| Computer and monitor | .6 |  |  |
| Dishwasher | .6 |  |  |
| Microwave | .6 |  |  |
| Television | .6 |  |  |
| Total | 3 |  |  |

(C) Assuming energy is priced at **11 cents per kilowatt-hour**, calculate the total daily cost of running the appliances, given the average use time (3 points).

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| **Question** | **Points Possible** | **Points Earned** | **Comments** |
| Refrigerator | .6 |  |  |
| Computer and monitor | .6 |  |  |
| Dishwasher | .6 |  |  |
| Microwave | .6 |  |  |
| Television | .6 |  |  |
| Total | 3 |  |  |

1. If a new refrigerator costs, on average $750:

|  |  |  |  |
| --- | --- | --- | --- |
| **Question** | **Points Possible** | **Points Earned** | **Comments** |
| Average yearly cost 18 yrs  SHOW ALL WORK | 2 |  |  |
| Average yearly cost 27 yrs  SHOW ALL WORK | 2 |  |  |
| Cost as a function of time | 4 |  |  |
| 45 years a good deal? Why or why not? Mathematically supported answer | 5 |  |  |
| Total | 13 |  |  |