

Name _____

Watt Can We Save

Directions: Calculate the cost of each appliance below. How much does it cost each month to run each appliance?

Cost per month =

Power used (kW) x Number of Appliances in House x Hours Used per Month x Cost per kWh

Item	Average Wattage*	Average kW (Wattage per 1000)	x	# in House	x	Average Hours Used per Month	x	Cost per kWh (\$0.10)	=	Cost per Month	Cost per Year
Incandescent bulb - 60 W*	60	0.06	x		x		x	.10	=		
Compact fluorescent bulb - 60 W equivalent*	18	0.018	x		x		x	.10	=		
Coffee maker	900	0.9	x		x		x	.10	=		
Microwave	1000	1.0	x		x		x	.10	=		
Hair dryer	1800	1.8	x		x		x	.10	=		
Dishwasher	1300	1.3	x		x		x	.10	=		
Stove/Range (electric)	12500	12.5	x		x		x	.10	=		
Refrigerator/Freezer	500	0.5	x		x		x	.10	=		
Clothes dryer (electric)	5000	5.0	x		x		x	.10	=		
Clothes washer	500	0.5	x		x		x	.10	=		
Computer, monitor, and printer	200	0.2	x		x		x	.10	=		
Television	80	0.08	x		x		x	.10	=		

**Note: Assume the same number of incandescent bulbs and compact fluorescent bulbs in the house to compare the cost of each.*



Watt Can We Save ANSWER KEY

The answers provided assume the following daily usage:

- Bulbs – 6 hours
- Coffee maker – 1 hour
- Microwave – 2 minutes
- Hair dryer – 10 minutes
- Dishwasher – 90 minutes or 1.5 hours
- Stove/range – 45 minutes
- Refrigerator – 24 hours
- Clothes dryer – 1 hour (assumes about 7 loads of laundry per week)
- Clothes washer – 1 hour (assumes about 7 loads of laundry per week)
- Computer, monitor, and printer – 24 hours (assumes never turned off)
- Television – 5 hours

In cases where minutes were used, the number of minutes per day was multiplied by 30 (for the average number of days in a month). That total was then divided by 60 to convert minutes to hours.

Item	Average Wattage*	Average kW (Wattage per 1000)	x	# in House	x	Average Hours Used per Month	x	Cost per kWh (\$0.10)	=	Cost per Month	Cost per Year
Incandescent bulb - 60 W*	60	0.06	x	7	x	180	x	.10	=	7.56	90.72
Compact fluorescent bulb - 60 W equivalent*	18	0.018	x	7	x	180	x	.10	=	2.27	27.24
Coffee maker	900	0.9	x	1	x	30	x	.10	=	2.70	32.4
Microwave	1000	1.0	x	1	x	1	x	.10	=	0.10	1.20
Hair dryer	1800	1.8	x	2	x	5	x	.10	=	1.80	21.60
Dishwasher	1300	1.3	x	1	x	45	x	.10	=	5.85	70.2
Stove/Range (electric)	12500	12.5	x	1	x	22.5	x	.10	=	28.13	337.56
Refrigerator/Freezer	500	0.5	x	1	x	720	x	.10	=	36.00	432.00
Clothes dryer (electric)	5000	5.0	x	1	x	30	x	.10	=	15.00	180.00
Clothes washer	500	0.5	x	1	x	30	x	.10	=	1.50	18.00
Computer, monitor, and printer	200	0.2	x	2	x	720	x	.10	=	28.80	345.60
Television	80	0.08	x	3	x	150	x	.10	=	3.60	43.20

