

# Lighting Cost Analysis

Name: \_\_\_\_\_  
Per: \_\_\_\_\_

Like many things in life, the bottom line on lighting may be the cost. Your challenge is to use data that you have collected together with additional information that is available on light bulb packaging to make a recommendation.

## Data to collect

Choose one bulb of each type tested that has an illumination closest to that of a 100 Watt frosted incandescent bulb.

For each bulb chosen, identify the power required to operate this type of bulb at this brightness:

Frosted Incandescent	Unfrosted Incandescent	Compact Fluorescent	Halogen
<b>100</b> W	____W	____W	____W

Look up the estimated life-span of each of these bulbs:

_____ hrs	_____ hrs	_____ hrs	_____ hrs
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Determine the cost to purchase each bulb:

\$ _____	\$ _____	\$ _____	\$ _____
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Determine the cost per kilowatt hour in the current market:

\_\_\_\_\_ \$ per kwh

Lets choose an average number of hours that a light bulb is on per day.

\_\_\_\_\_ hours per day \* 30 days per month = \_\_\_\_\_

**GOAL:** From this data, determine the total cost to operate this bulb in a typical household for one month (30 days).

To do this, first determine the cost to purchase and operate each bulb for its entire predicted life span.

Then determine the cost to operate each bulb for one month, using the number of hours we've decided will account for one month of usage.

Calculate the cost to operate bulb for its entire life span here: (For any number written, be sure to indicate its units!!)			

Calculate the cost to operate bulb for one month of usage here: (For any number written, be sure to indicate its units!!)			