

Real estate agents typically use the median price, not the mean, for homes in their area. Below you can see some of the median home prices for residences in the Metroplex. In New York City \$300 to \$400 (or even much higher!) per square foot is common. That same home placed in the middle of nowhere might cost only \$40 a square foot.

Use a calculator to determine the price per square foot for each city. Round answers to the nearest dollar or nearest foot.

City	2008 Median Price	Average Size Home (Square Feet)	Price per Square Foot
Bedford	\$155,000	1867	
Euless	\$148,500	1789	
Hurst	\$140,000	1750	
Colleyville	\$450,000	3333	
Grapevine	\$220,000	2136	
Southlake	\$527,450	3588	
Keller	\$284,950	2663	
Westlake	\$390,500	2693	
Coppell	\$260,000	2342	
Carrollton-Farmers Branch	\$159,900	1817	
Irving	\$142,500	1516	
Grand Prairie	\$126,140	1940	
Duncanville	\$108,370	1693	
Arlington	\$129,730	1802	
Mean of all cities			
Median of all cities			
Range of all cities			

Southlake has the highest price homes. Is this mainly because the homes are larger or mainly because people pay more per square foot? Support your answer with data from above.	
Duncanville has the lowest price homes. Is this mainly because the homes are smaller or mainly because people pay less per square foot? Support your answer with data from above.	

The tables below represent the results of a national survey about people and their homes. Use the results of the survey to complete the missing items and questions. You may use a calculator for this page.

Question #1: What is most important about your home?

		Number of people in the survey	Number responded	Percent
1.	It is comfortable.	2500		47%
2.	It is clean and safe.	2500		22%
3.	I like the location.	2500	Lower Quartile	16%
4.	It's well decorated.	2500		11%
5.	It has great curb appeal.	2500		4%

Question #2: Which of these upgrades would make you happiest?

		Number of people in the survey	Number responded	Percent
1.	State of the art kitchen	3500	1050	
2.	High-tech family room	3500	875	
3.	Finished basement	3500	595	
4.	Spa-like bathroom	3500	560	
5.	Luxurious bedroom	3500	420	

Question #3: Where would your dream home be?

		Number of people in the survey	Number responded	Percent
1.	Beach		728	26%
2.	Country		644	23%
3.	Small Town		532	19%
4.	Big City		476	17%
5.	Mountain		420	15%

1.	<p>Create a bar graph of one of the tables above. Make sure your graph has a title and all sections are labeled with both the answer and either the percent or the number of responses.</p> <p>Use a separate piece of graph paper to create your graph.</p>
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Have you ever wondered how much it costs to have your computer on for an hour? How about the dishwasher or the washing machine? What uses the largest amount of energy in a typical house?

1.	Heating and Cooling	43%
2.	Appliances and Refrigeration	18%
3.	Water Heating	12%
4.	Lighting	11%
5.	Home Electronics	7%
6.	Other	9%

- An average 2000 sq. foot house uses 1600 kWh (kilowatt hours) per month of electricity.
- An average cost per kWh in Texas is \$0.12.
- While many homes use gas as part of their energy consumption, we will assume everything in your house runs on electricity for this exercise.

Use the information above to complete the table below for a typical Texas house. You may use a calculator for this page.

	Monthly Electricity Usage (in kWh)	Monthly Electricity Cost (in \$)	Yearly Electricity Usage (in kWh)	Yearly Electricity Cost (in \$)
Heating and Cooling				
Appliances and Refrigeration				
Water Heating				
Lighting				
Home electronics				
Other				
TOTAL				

1.	If a typical family was able to cut their heating and cooling costs by 10%, how much would they save each month? year?		
2.	If a typical family was able to cut their lighting costs by 40%, how much would they save each month? year?		
3.	If a typical family was able to cut their water heating costs by 15%, how much would they save each month? year?		
4.	If a family wishes to spend a total of \$2000 each year on energy, by what percentage are they going to need to decrease their energy usage?		
5.	Based on the information on this page, what would be easiest thing for a family to do to save money each month on their energy bill?		

Utilities are things at your house such as electricity, gas, telephone, internet, and cable TV. The total monthly cost of utilities can vary quite a bit depending on the city that you live in.

Use the information below to complete the table regarding 2008 utility costs. You may use a calculator for all problems on this page. Note that the percentages are all compared to the US average.

City	Total Monthly Utility Cost (nearest dollar)	% Compared to US	% Compared to US, fraction form (simplest form)	% Compared to US, decimal form
United States Average	\$290	100%		
LA		81%		
Orlando		86%		
Chicago		98%		
Atlanta		99%		
Philadelphia		109%		
Baltimore		124%		
Houston		129%		
Dallas		130%		

1.	In Dallas the summers are very warm and using a lot of air conditioning can greatly increase the total utility bill. If an average home in Dallas during the summer is spending 40% more than the monthly cost above for Dallas, how much would expect to pay per month in the summer?	
2.	During winter months, the average Dallas bill is 30% below the Dallas average listed above. How much would you expect to pay per month during the winter?	
3.	Looking at the percentage column, what is the ratio of US to Dallas in simplest form?	
4.	If there are between 400,000 and 500,000 households in Dallas, which of the following is a good estimate of the total amount spent on utilities in a month in Dallas? A \$1.7 million C \$17 million B \$170 million D \$1.7 billion	
5.	What is the range of the total monthly utility cost of the cities above?	