



	1990	2000
Homes	1/4	1/3
Industry	1/6	1/5
Forests	3/5	1/2

This diagram, from the Fairfax County *Stream Protection Strategy Baseline Study* shows how the land is being used in the watershed that supports Cub Run, which is a major creek network in this area of Fairfax County, Virginia. The table summarizes the amount of land cover in several important categories.

Problem 1 - By what fraction did the amount of forested area decrease between 1990 and 2000?

Problem 2 - By what fraction did the area covered by homes increase between 1990 and 2000?

Problem 3 - By what fraction did the amount of land for industrial use increase during the time interval?

Problem 1 - By what fraction did the amount of forested area decrease between 1990 and 2000?

Answer: $1/2 - 3/5$ so this can be written using the common denominator of '10' as $5/10 - 6/10 = -1/10$. The number is negative so the area has **decreased by $1/10$** from the 1990 value.

Problem 2 - By what fraction did the area covered by homes increase between 1990 and 2000?

Answer: $1/3 - 1/4$ so the common denominator is 12 and this becomes $4/12 - 3/12 = +1/12$ so the land area in homes has **increased by $1/12$** .

Problem 3 - By what fraction did the amount of land for industrial use increase during the time interval?

Answer: $1/5 - 1/6$ so the common denominator is 30 and this becomes $6/30 - 5/30 = +1/30$, so the land area has **increased by $1/30$** .