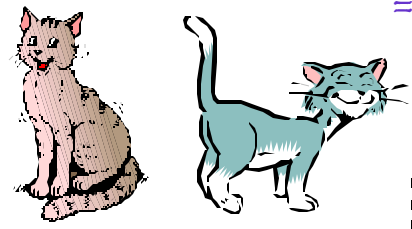


Too Many Cats: Where Can They Go?

First Year
1 female + 1 male



=

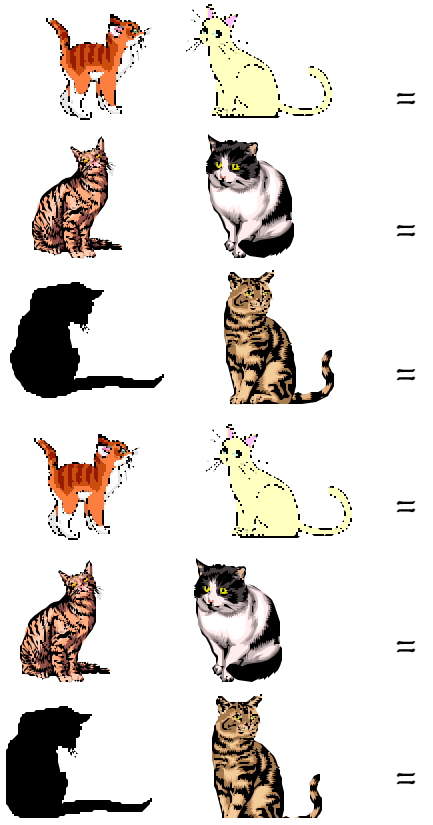


In the first year
there will be 12
kittens

It all starts here!

Second Year
Those 12 kittens in one year
would have 12 kittens each

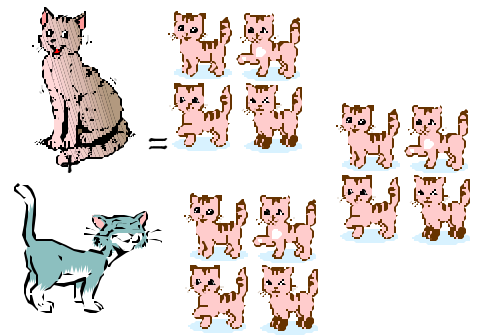
The original male & female
would have 3 more litters of
4 kittens in the second year.
 $3 \times 4 = 12$



$3 \times 4 = 12$ kittens
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$3 \times 4 = 12$ kittens
$3 \times 4 = 12$ kittens

= 72 kittens

Altogether in
2 years:
12 kittens
+
72 kittens
=
84 kittens



Can you guess
how many cats
there will be at the
end of 3 years?

At the end of the second year
there were 84 new cats.

42 males



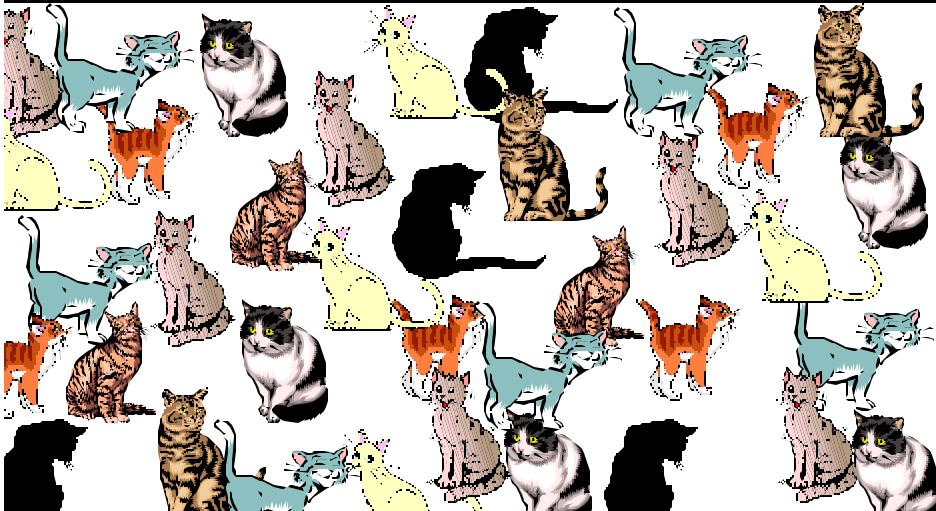
42 females



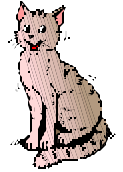
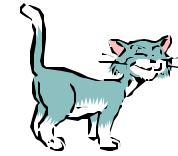
Third Year
Each of these 42
pairs will have three
litters of 4 each.



$42 \times 12 = 504$ kittens from new parents
72 kittens from grandparents
12 kittens from great grandparents
588 new kittens at the end of the
3rd year



At the end of the third year
there were 588 new cats.
Total 588 cats = 294 males & 294 females



Each of these 294 pairs will have three litters
of 4 each. ($3 \times 4 = 12$)
 $294 \times 12 = 3528$ kittens from new parents
504 from grandparents
72 from great grandparents
12 from great-great grandparents
4116 new kittens at the end of the
4th year!

