1. In binary system, the first four place values after the radix point from left to right is, 0.5, 0.25, 0.125, 0.0625.
2. These can be represented exactly in decimal:

1/2=0.5

1/4=0.25

1/5=0.2

1/8=0.125

1/10=0.1

1/16=0.0625

1/20=0.05

1/2=0.5

3/4=0.75

4/5=0.8

7/8=0.875

9/10=0.9

15/16=0.9375

19/20=0.95

3/24=0.125

6/24=0.25

9/24=0.375

12/24=0.5

15/24=0.625

18/24=0.75

21/24=0.875

1. These can be represented exactly by binary

1/4=0.01

1/8=0.001

1/16=0.0001

1/2=0.1

3/4=0.11

7/8=0.111

15/16=0.1111

3/24=0.001

6/24=0.01

9/24=0.011

12/24=0.1

15/24=0.101

18/24=0.11

21/24=0.111

1. If the denominator is the result of 2 to the x and the fraction is irreducible, then the fraction has a exact representation in binary.