1. Solve for the following inequality (x-4)(x-5)(x-6)>0

 The solution set \_\_\_\_\_ (interval notation)

1. Use the remainder theorem to find the theorem to find the remainder when f(x) is divided by x-1. Then use the factor theorem to determine whether x-1 is a factor of f(x).

f(x)=2x3+2x2-9x+6

Remainder is\_\_\_\_\_\_

1. Use the remainder theorem to find the theorem to find the remainder when f(x) is divided by x+3. Then use the factor theorem to determine whether x+3 is a factor of f(x).

f(x)=4x6+114x3+162

Remainder is\_\_\_\_\_

1. What does Descartes rule of signs tell you about the possible number of positive real zeros and the possible number of negative real zeros of the function?

f(x)=3x5-4x2+x-3

The possible number of positive real zero is\_\_\_\_\_ and the possible number of negative real zeros is\_\_\_\_\_\_.

1. What does Descartes rule of signs tell you about the possible number of positive real zeros and the possible number of negative real zeros of the function?

f(x)=9x6+8x4+x-9

The possible number of positive real zero is\_\_\_\_\_ and the possible number of negative real zeros is\_\_\_\_\_\_.

1. Use the rational zero theorem to list all possible rational zeros for the given fuction

f(x)=x3-4x2-19x-14

X=\_\_\_\_\_\_\_