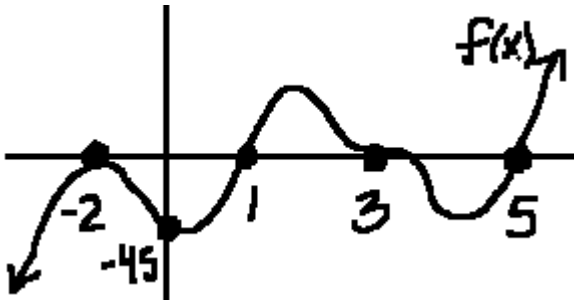


1A) Write the least degree polynomial function in factored form for the graph shown. Include leading coefficient A and state whether A is positive or negative.



1B) Find the value of A & write the exact equation of this graph.

1C) On what interval(s) is $f(x) \geq 0$?

2) Given $f(x) = \frac{(x+4)^2(x)}{(x-7)^3(x+1)}$, state the interval(s) for which $f(x) \geq 0$.

3A) Given $f(x) = \frac{4x-21}{x-5}$, re-express the function as $f(x) = \text{Quotient} + \frac{\text{Remainder}}{\text{Divisor}}$.

3B) Identify

| | |
|----|-------------|
| HA | y-intercept |
| VA | x-intercept |

3C) Sketch a graph and label information from 3b).

