

## PC 3-6 Practice Problems:

Find each item algebraically and construct a detailed, accurate graph with minimal use of the calculator. If any item does not apply, write "none". Find the: **a)** x-intercepts **b)** y-intercepts **c)** Vertical Asymptotes  
**d)** Horizontal Asymptotes **e)** Oblique Asymptotes **f)** POI with any asymptotes

a) $R(x) = \frac{2x^2 - 5x - 12}{2x^2 - 8}$	b) $R(x) = \frac{x + 1}{x^2 + x - 2}$
c) $R(x) = \frac{x^2 + 3x + 2}{x - 1}$	d) $R(x) = \frac{x^2 + 2}{x^4 - 1}$
e) $R(x) = \frac{x^2 + x - 12}{x^2 - 4}$	f) $R(x) = \frac{(x+7)(x-9)}{(x)(x+2)(x-5)}$

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