Unit 4 Warm Up

8) Carlos can travel 40 miles on his scooter in the same time it take Paul to travel 15 miles on his bicycle. If Paul rides his bike 20 miles per hour slower than Carlos rides his scootre, find the speed for each.

9) Determine the VA(s), HA(s), x-intercept(s), y-intercept and any hole(s). Then sketch the graph.

$$y=\frac{2x+2}{x-1}$$

V.A. =

H. A. =

x-intercept(s) =

y-intercept =

hole(s) =

Solve

6) $\frac{2x+1}{x+1}=\frac{2}{6}$ 7) $\frac{x}{x-1}+x=\frac{4x-3}{x-1}$

Simplify

2) $\frac{x^{2}-6x}{x^{2}-36}∙\frac{x+6}{x^{2}}$ 3) $\frac{x^{2}+10x+16}{x^{2}-6x-16}÷\frac{x+8}{x^{2}-64}$

4) $\frac{3}{p-6}+\frac{3}{p+2}$ 5) $\frac{2x+1}{2x+4}-\frac{6x}{3x}$

1. Factor each of the following:
2. $8x^{2}+12x$ b. $x^{2}+9x+14$