Algebra 1 (H) Name_____ ID: 1

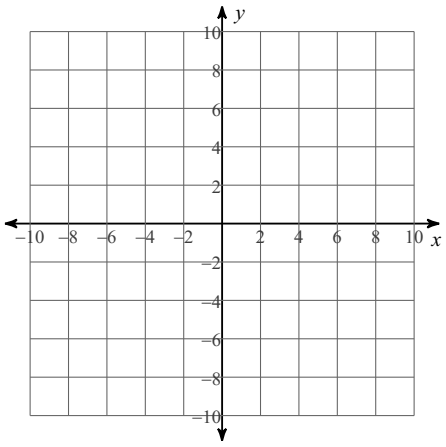
Ch. 11 Review Questions-More Practice

Date_____ Period____

SHOW ALL WORK. USE ADDITIONAL PAPER IF NEEDED. DUE THURSDAY 5/5.

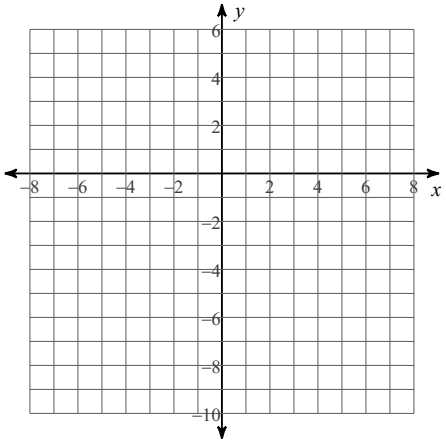
1) Assume that y varies inversely as x. If $x = \frac{1}{3}$ when $y = 12$, find x when $y = \frac{1}{4}$.

2) Write and graph the inverse variation equation that relates x and y, if $y = -5$ when $x = -2$.



Identify the equations of the asymptotes of each function. Then sketch the graph.

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



Simplify each and state the excluded values.

4) $\frac{6x + 18}{12x}$

5) $\frac{7b^2 - 63b}{2b^2 - 20b + 18}$

6) $\frac{8x^2 + 56x + 80}{3x^3 + 16x^2 + 5x}$

Find each product or quotient and simplify each expression.

7) $\frac{2n^2}{6} \div \frac{6}{2}$

8) $\frac{4n-28}{n+1} \cdot \frac{n+1}{n^2-11n+28}$

9) $\frac{3p^2+12p}{10-p} \cdot \frac{5p^2-50p}{p^2+12p+32}$

Simplify.

10) $\frac{\frac{u}{5}}{\frac{3}{5}-\frac{3}{u}}$

11) $\frac{\frac{u}{4}+\frac{u^2}{16}}{\frac{u-3}{4}+\frac{u-3}{u}}$

Simplify each expression.

12) $\frac{4}{2x}+\frac{x+3y}{3}$

13) $\frac{3}{n+2}-\frac{4n}{n-2}$

14) $\frac{6}{n+5}-\frac{4}{5n+6}$

15) $4x-\frac{6x+1}{9x^2-18x}$

Solve each equation. Remember to check for extraneous solutions.

16) $\frac{4}{x-3}=\frac{1}{x-3}-1$

17) $\frac{n^2-2n-24}{6n^3}=\frac{1}{3n^2}+\frac{1}{6n}$

18) $\frac{2}{p^2+2p-24}=\frac{6p+6}{p^2+2p-24}+1$

19) If Nate maintains a pace of $\frac{2}{13}$ mile per minute, how long will it take for him to run 8 miles?

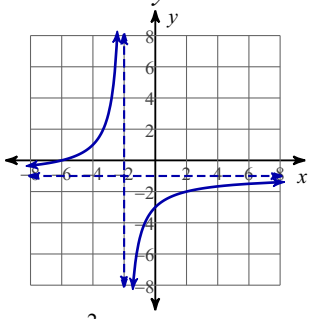
Convert into feet per year. Write your answer with correct units.

20) $\frac{0.4inch}{day}$

Answers to Ch. 11 Review Questions-More Practice (ID: 1)

1) 16

3) $x = -2$ and $y = -1$



5) $\frac{7b}{2(b-1)}$; $\{9, 1\}$

7) $\frac{n^2}{9}$

9) $-\frac{15p^2}{p+8}$

11) $\frac{u^2}{4u-12}$

13) $\frac{-5n-6-4n^2}{(n-2)(n+2)}$

15) $\frac{36x^3-72x^2-6x-1}{9x(x-2)}$

17) $\{-6\}$

19) 52 minutes