Math-1010 HW #4-3 (Add/subtract rational expressions) Date_____ Period____

Simplify each expression.

1) $\frac{6m-n}{30m} - \frac{m-6n}{30m}$

2) $\frac{u-6v}{10u^2} - \frac{4u+3v}{10u^2}$

3) $\frac{u-5v}{6u^2} - \frac{5u+2v}{6u^2}$

4) $\frac{x+3y}{6} + \frac{5x}{3x}$

5) $\frac{3}{2p-5} - \frac{5}{2p}$

6) $\frac{a-4}{a-2} - \frac{2}{a+2}$

7) $\frac{3x}{2x+5} - \frac{6}{2(x-2)}$

8) $\frac{3}{5n+6} + \frac{3}{n+3}$

9) $\frac{6x}{3x} - \frac{6x}{3x^2+18x}$

10) $\frac{2a}{a-3} - \frac{2}{a+5}$

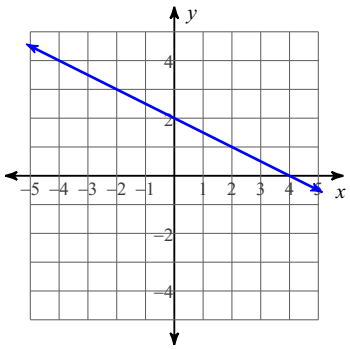
Simplify each and state the excluded values.

11) $\dfrac{3n^3 + 33n^2 + 90n}{3n^2 - 12n - 180}$

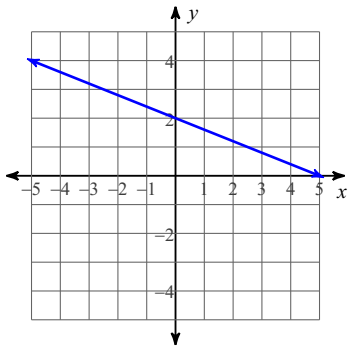
12) $\dfrac{m^2 + 12m + 27}{2m^2 + 4m - 126}$

Write the slope-intercept form of the equation of each line.

13)



14)



Write the slope-intercept form of the equation of the line through the given points.

15) through: $(-3, -4)$ and $(-1, -1)$

16) through: $(-1, 5)$ and $(3, -2)$

Simplify.

17) $\sqrt{10}\left(\sqrt{2} + \sqrt{3}\right)$

18) $-\sqrt{10}\left(3\sqrt{5} + 5\right)$

19) $\sqrt{150xy^2z^3}$

20) $\sqrt{63m^4n^2p}$