

ALEKS® Rational Expressions Quiz 1 #1

Beginning and Intermediate Algebra Combined / MATH 103 - Fall 2014 – 504 (Prof. Miller)

Student Name/ID:

Instructor Note:

Directions: Every problem is worth two points. One point is for trying the problem and showing your work and one point is for getting the correct answer. There are an additional five points for demonstrating the study strategy that is posted on the board and talked about at the beginning of class.

1. Add.

$$\frac{2}{x-5} + \frac{3}{x+4}$$

Simplify your answer as much as possible.

2. Solve for x

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

3. Find the least common multiple of $10m^4$ and $8a^3$

4. Solve for w

$$-5 = \frac{1}{w-5}$$

Simplify your answer as much as possible.

5. Simplify.

$$\frac{\frac{3}{w+2}}{\frac{18w}{w^2-4}}$$

6. Divide.

$$\frac{2y}{3a} \div \frac{10y^5}{9ay}$$

Simplify your answer as much as possible.

7. Divide.

$$\frac{x^2-3x+2}{x^2+5x+6} \div \frac{4x-8}{x+2}$$

Simplify your answer as much as possible.

8. Simplify.

$$\frac{3v^3x^3}{3u^3x^5 - 15x^2}$$

9. Subtract.

$$\frac{2y+5}{6y} - \frac{y-6}{8y}$$

Simplify your answer as much as possible.

10. Solve for w

$$\frac{5}{w-1} = -9 + \frac{2}{w+1}$$

11. The function h is defined as follows.

$$h(x) = \frac{x^2 - 3x - 10}{x^2 - 14x + 45}$$

Find $h(6)$

Simplify your answer as much as possible.

12. Simplify.

$$\frac{\frac{5x+25}{x}}{\frac{10x+20}{3x}}$$

13. Simplify.

$$\frac{4u^2 - 100}{u^2 - 8u + 15}$$

14. Subtract.

$$-\frac{5x-6y}{4x} - \frac{3x+11y}{4x}$$

Simplify your answer as much as possible.

15. Subtract.

$$\frac{x+9}{x+5} - \frac{x-3}{x}$$

Simplify your answer as much as possible.

Rational Expressions Quiz 1 #1 Answers for class Beginning and Intermediate Algebra Combined / MATH 103 - Fall 2014 – 504

1. $\frac{5x-7}{(x-5)(x+4)}$

2. $x = 5, -3$

3. $40m^4a^3$

4. $w = \frac{24}{5}$

5. $\frac{w-2}{6w}$

6. $\frac{3}{5y^3}$

7. $\frac{x-1}{4(x+3)}$

8. $\frac{v^3x}{u^3x^3-5}$

9. $\frac{5y+38}{24y}$

10. $w = \frac{1}{3}, -\frac{2}{3}$

11. $h(6) = -\frac{8}{3}$

12. $\frac{3(x+5)}{2(x+2)}$

13. $\frac{4(u+5)}{(u-3)}$

14. $\frac{-8x-5y}{4x}$

15. $\frac{7x+15}{x(x+5)}$