Period: _____   Name: _____

Chapter 6 Assignment – Rational Expressions & Equations

/25

Show all of your work.

1) Simplify. Keep a list of non-permissible values in the rectangle (2 marks each).

a) $\dfrac{6x+18}{x^2+8x+15}$

b) $\dfrac{x^2-4}{6+3x}$

ANSWER:

ANSWER:

2) Simplify. Keep a list of non-permissible values in the rectangle (2 marks each).

a) $\dfrac{n^2-4}{2n-1} \cdot \dfrac{12n-6}{n+2}$

b) $\dfrac{x-3}{x^2+2x-15} \cdot \dfrac{2x+10}{2x^2-15x+7} \div \dfrac{2x+4}{x^2-5x-14}$

ANSWER:

ANSWER:

3) Simplify. Keep a list of non-permissible values in the rectangle (2 marks each).

a) $\dfrac{2y}{y+3} + \dfrac{3}{y^2-9}$

b) $\dfrac{3x+3}{x^2-4x-12} - \dfrac{x+1}{x^2-4}$

ANSWER:

ANSWER:

4) Simplify. Keep a list of non-permissible values in the rectangle (3 marks):

$$\dfrac{1+\dfrac{3}{x}}{x-5-\dfrac{24}{x}}$$

ANSWER:

5) **Solve** and **check**.   **Keep a list of non-permissible values in the rectangle** (3 marks each).

a) $\dfrac{2y}{y^2-1} = \dfrac{2}{y+1} - \dfrac{1}{y-1}$

check:

ANSWER:

b) $\dfrac{z}{2z+2} + \dfrac{2z}{4z+4} = \dfrac{2z-3}{z+1}$

check:

ANSWER:

6) It takes Ryan 7 hours to do the lawn and gardening maintenance at a commercial property alone. Jeff can do the work in 6 hours alone. Assuming they have enough equipment, **how long would it take them to complete the work together**? Create and solve a rational equation. Answer in hours and minutes (to the nearest minute). (4 marks)

SENTENCE ANSWER: