**6.1**

*Which numbers cannot be used in place of the variable in each*

*rational expression?.*

#18

 ­­­ 2Y + 1

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 y2 \_ y – 6

#44 *Reduce each rational expression to lowest terms. Assume that the*

*variables represent only numbers for which the denominators are*

*nonzero.*

a2 \_ b2

a - b

Reduce each expression to lowest term.

**92.**

**4x2**

**----------**

**2x9**

**102.**

**-2x – 8**

**X2 + 2x - 8**

**6.2**

*Perform the indicated operation*

**70.**

*-2a2  20a*

*---- - ------*

*3a2 15a3*

**76.**

**W2  - 1 w – 1**

**--------- - --------**

**(w – 1)2 w2 +** 2w + 1

**6.3**

 **20.**

**- 7yt ?**

**------ = ---**

 3x 18xyt

*Find the LCD for the given rational expressions, and convert*

*each rational expression into an equivalent rational expression*

*with the LCD as the denominator.*

**66.**

 4 , 5x

------- --------

X –y 2y -2x

**6.4**

*Perform the indicated operation. Reduce each answer to lowest*

*terms.*

**8.**

**4 1**

**--- - ----**

 **9 9**

**28.**

 **a + 7 9 – 5a**

**-------- + ---------**

**a – 4 a - 4**

*Perform the indicated operation. Reduce each answer to*

*lowest terms.*

**40.**

**y + 2y**

**4**

*Perform the indicated operation. Reduce each answer to lowest*

*terms.*

**56.**

 **3 2**

**------- + -------**

**x +1 x - 1**

**62.**

 2 3

------ + ------

X -3 3-x

**6.5**

*Simplify each complex fraction. Reduce each answer to*

*lowest terms.*

 **52.**

1. **1 + 1**

**9 3x**

**x 1**

**9 - x**

 **58.**

**6.6**

Solve equations

30.

x 4

3 = -------

 x +1

Solve each equations

42.

 5 y + 7

------- = --------- + 1

Y - 3 2y - 6

**50.**

-3 x

---- = ----

 X - 3