1. Find all numbers for which the rational expression is not defined.

$$\frac{3}{(2y+5)}$$

Answer:

$$\frac{x^2+11}{x^2-3x-28}$$

Answer:

2. Simplify:

$$\frac{a^2-9}{a^2+5a+6}$$

Answer:

Multiple and Simplify

$$\frac{4a^2}{3a^2-12a+12} \cdot \frac{3a-6}{2a}$$

Answer:

3. Find the LCM $2x^2,\ 6xy,\ 18y^2$

Answer:

Find the LCM $2+3x,\ 4-9x^2,\ 2-3x$

Answer:

4. Add and simplify if possible.

$$\frac{5}{6r} + \frac{7}{8r}$$

Answer:

$$\frac{6}{x-y} + \frac{4x}{y^2-x^2}$$

Answer:

5. Subtract and simplify if possible.

$$\frac{4z-9}{3z} - \frac{3z-8}{4z}$$

Answer:

$$\frac{4-x}{x-9} - \frac{3x-8}{9-x}$$

Answer:

6. Solve

$1/x = 2/3 - 5/6$

Answer:

$$\frac{t+2}{5} - \frac{t-2}{4} = 1$$

Answer:

7. Write the formula for each word problem.

The speed of one bicyclist is 2km/hr faster than another bicyclist. The first bicyclist travels 60 km in the same amount of time that it takes the second to travel 50 km. Find the speed of each bicyclist.

Answer:

8. Mary has $36 budgeted for office stationary. Engraved stationary costs $20 for the first 25 sheets and $0.08 for each additional sheet. How many engraved sheets can Mary order and still stay within her budget?

Answer:

9. A swimming pool can be filled in 5 hours by hose A alone and 6 hours by hose B alone. How long would it take to fill the pool using both hoses?

Answer:

Practice - Solving with Exponents

$4x^3 - 2 = 106$