

After Exam 2

- 1) Show all work on a separate sheet of paper downward. The heading for this paper is:
After Exam 2
- 2) Circle all answers.
- 3) No decimals and positive exponents only

Factor the following:

1) $4x^2 - 1$

2) $2x^2 - 2x - 12$

3) $3x^2 - 7x + 4$

Simplify Completely

4) $\frac{5a^{-1} - 2c^{-1}}{25a^{-2} - 4c^{-2}}$

5) $\frac{2y+9}{y^2-7y+12} - \frac{2}{y-3}$

6) $(36x^4y^3 - 18x^3y^2 - 12x^2y) \div (6x^3y^3)$

7) $\frac{a^2-6}{a^2+9a+18} - \frac{a-4}{a+6}$

8) $\frac{2x^2-2x-12}{(x-7)(x+7)} \cdot \frac{4x^2-1}{2x^2+5x+2} \cdot \frac{(2x+1)(x-7)}{2x^2-7x+3}$

9) $\frac{y^2-2}{y^2+6y-7} - \frac{19-4y}{y^2+6y-7}$

10) $\frac{3x}{(x+2)(x-1)} + \frac{2}{(x-3)(x-1)}$

11) $\frac{y-1}{y^2+2y+1} - \frac{3}{2y-2} + \frac{y}{y^2-1}$

Find the domain:

12) $f(x) = \frac{2x+1}{2x^2-x-1}$

13) $f(y) = \frac{y-5}{(y-2)(y+4)}$

Solve the equation

14) $\frac{2}{a+3} - \frac{5}{a+1} = \frac{3a+5}{a^2+4a+3}$

15) $\frac{3x+1}{x-4} = \frac{6x+5}{2x-7}$

16) Solve the formula for r: $P = \frac{A}{2+r}$