

After Exam 3

Do the following problems on a separate sheet of paper. Show all work downward and circle your answers. Skip two lines between problems. Problems must be done in order on your paper. Do not crowd the work. All problems must be attempted to get credit.

1) Find the domain and write in interval notation. $f(x) = \sqrt{9x-27}$

Solve the equation

2) $x + \sqrt{26-11x} = 4$

3) $(3x-1)^{\frac{1}{3}} + 4 = 0$

Rewrite each expression with rational exponents.

4) $\sqrt[3]{xy^3}$

5) $(\sqrt[6]{9x^2y})^5$

Simplify completely

6) $3\sqrt{15} \cdot 5\sqrt{6}$

7) $\sqrt[3]{\frac{50x^8}{27y^{12}}}$

8) $(5\sqrt{3}-3\sqrt{2})(3\sqrt{2}+2\sqrt{3})$

9) $\frac{x^{\frac{4}{5}}}{x^{\frac{1}{5}}}$

10) $\frac{\sqrt{50xy}}{2\sqrt{2}}$

11) $\sqrt[5]{64x^6y^{17}}$

Rationalize the denominator

12) $\frac{2\sqrt{6}+\sqrt{5}}{3\sqrt{6}-\sqrt{5}}$

13) $\frac{10}{\sqrt{11-3}}$

14) $\frac{9}{\sqrt{3y}}$