MA 180****** Fall 2011***** Exam 1

Name _____ **_____ of 80 points**

There are twenty questions on this exam worth four points each. Partially correct answers may receive partial credit. Put all answers in the answer column. Only the answers in the box will be graded. Use scrap paper (provided) to do all of your work. Staple all scrap paper to the test. Simplify every answer. Do not give decimal approximations. Do all of your own work.

Questions	Answers (Do not put work here.)
1. Write either 1,2, or 3 depending on which section you are registered for in PeopleSoft. Section 1 meets MWF from 1-1:50pm, section 2 meets MWF from 3-3:50pm, and section 3 meets MWF from 8-8:50 am.	
2. Simplify: (0.3) $\left(3y^2\right)\left(2y^4\right)^5 =$	
3. Simplify and eliminate any negative exponents: (0.3) $\left(-2x^4\right)^5\left(4x^6\right)^{-1} =$	
4. Simplify: (0.4) $\sqrt[3]{-125} =$	
5. Simplify completely: (0.4) $\sqrt[3]{80x^6} =$	
6. Rationalize the denominator and simplify: (0.4) $\frac{6}{\sqrt[3]{18}} =$	
7. Multiply: (0.5) $\left(3x^2-2\right)\left(5x+4\right) =$	
8. Factor completely: (0.6) $x^3+6x^2+9x =$	
9. Factor completely: (0.6) $(x-1)^2-49 =$	
10. Factor completely: (0.6) $125-x^3 =$	
11. Factor completely: (0.6) $3-x+3x^2-x^3 =$	

12. Simplify: (0.7-1) $\frac{x^2-5x+6}{x^2-4}=$	
13. Simplify: (0.7-1) $\frac{x^2-49}{7-x}=$	
14. Perform the indicated operation and simplify: (0.7-1) $\frac{x^2-x-6}{x^2+10x+25}\div\frac{x^2-4}{x+5}=$	
15. State the domain: (0.7-1) $\frac{x^2+8x-20}{x^2+11x+30}=$	
16. Perform the indicated operation and simplify: (0.7-2) $\frac{7x}{5-x}+\frac{2}{x^2-25}=$	
17. Perform the indicated operation and simplify: (0.7-2) $\frac{4+\frac{2}{x^2-4}}{\frac{3}{x-2}+\frac{6}{x+2}}=$	
18. Solve for *x*. (1.1) $\frac{x}{6}-\frac{3x}{8}=-7$	
19. Solve for x: (1.1) $\frac{4}{x-1}+\frac{6}{3x+1}=\frac{15}{3x+1}$	
20. Solve for x: (1.1) $\frac{3}{x(x-3)}+\frac{4}{x}=\frac{1}{x-3}$	