MTH-100 Review for Test 1 Answers Luczak

1. $-x^4+33x^2y+9x^2$

2. a) $25x^4-30x^2+9$ b) $-2x^4-2x^3+19x^2+x-6$ c) $-8x^3y^9z$

3. a) $\frac{-2a}{b^3}$ b) $\frac{10}{x}+\frac{3}{10}$ also acceptable is $\frac{100+3x}{10x}$

4. a) $2xy\ \ 9x^2+5y^4$ b) $7x+8\ ^3\ \ 28ax+32a-1$ c) $4\ \ x-2\ \ x+2\ \ x+3$

   d) $x-13\ \ x+3$ e) $3x+2\ \ 4x+5$ f) unable to be factored

5. c, if negating the fraction either the numerator OR denominator can be multiplied by -1, if it is the numerator and it has 2 or more terms the negative would need to be distributed.

6. $\frac{x-3\ ^2}{x^2\ \ x-2\ \ x+2}$

7. $\frac{x-4\ \ x+2}{x+4\ \ x^2+4}$

8. $\frac{12y-5x^2}{90x^3y^2}$

9. $\frac{-3x^2-14x+1}{x+1\ \ x+6\ \ x-3}$

10. a) $\frac{24x+12}{2x^2+x}$ b) $\frac{-1}{x\ \ x+h}$

11. a) $-5,\infty$ b) $\left(-12,\frac{14}{3}\right]$ c) $-\infty,4\ \cup\ 8,\infty$ d) $3,9$

12. a) $x=\frac{1}{3},\frac{7}{3}$ b) $x=-2,6$ c) no real solution

13. $A=\ -4,-2$ $B=\ 2,-5$ $C=\ -3,4$ $D=\ 1,5$ $E=\ 5,0$

14. True. If the points are plotted you can see that the points in the first quadrant are rotated 180° they would match up to the points in the third quadrent.