MTH-107 Answers to Review for Test 1 Luczak

1. $5800 = 2^3 \cdot 5^2 \cdot 29$
2. $153 = 3^2 \cdot 17$; $357 = 3 \cdot 7 \cdot 17$; GCF is 51; LCM is 1071
3. 36
4. 4 packs of hot dogs and 5 packs of buns
5. 2;4
6. 9
7. $63 + 7\sqrt{5}$
8. False: $5 - 4 \neq 4 - 5$
9. a) $\frac{1}{x^{15}}$ b)1 c) $\frac{15x^7}{y^2}$ d) $\frac{7y^4}{x^3}$
10. $.00003675$
11. 3.875×10^9
12. 1.2×10^{-4}
13. 9
14. $x = \frac{1}{5}$
15. $y = 10$
16. $y = -1$
17. $x = -1$
18. \$60
19. \$10,000
20. $(6, \infty)$
21. $(-\infty, 2]$
22. $\left(-\frac{3}{4}, 1\right]$
23. at least 64
24. $12x^2 - 13x - 14$
25. $x = -4 \text{ or } 8$
26. $x = -5 \text{ or } -2$
27. $x = -3 \text{ or } 5$
28. $x = \frac{5 \pm \sqrt{41}}{2}$
29. $x = \frac{3 \pm 2\sqrt{6}}{3}$