LHS Algebra Pre-Test 2005 Solution key

1. B) $y = -1.5x - 2$

2. (D) –3

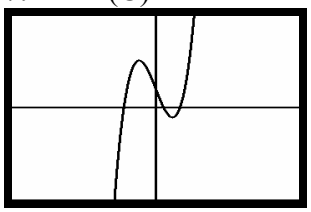
3. (D) 12

4. (E) $\frac{2x^5}{x^{14}}$

5. (A) $x = 4$ and $x = -6$

6. (D) $\frac{ac}{3b}$

7. (C)



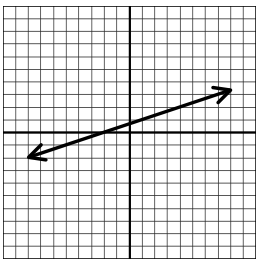
8. (2, –4)

9. a. line with m = –0.5

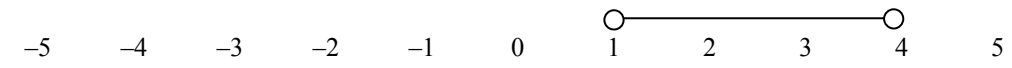
b. line with m = 2

10. $y = \frac{(x+2)}{3}$ *or* $y = \frac{1}{3}x + \frac{2}{3}$ *or any equivalent function*

b.



11. a. $1 < x < 4$



12. $x^7 + 5x^6 - x^4 + 10x^3 - 6x$

13. a. $(2x-5)(2x+1)$

b. $x = 5/2$ or $x = -1/2$

14. a. $x = -3,\ x = 1$

Also accept: $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

b. $f(x)$ has a maximum at x= –1

15. a. $f(x)=35 + 7x$

b. $25g(x)=32\ (1.25)^x$

c. the German club [$g(2)= 50, f(2)= 49$]

16. a. $P(x) = 100–1.4x$

b. $P(25) = 65$ There are 65 people in the hall after 25 minutes.

c. $23 = 100–1.4x$ $x = 55$ minute

17. ex: b = price of a burger and h = price of a hotdog

b. $8.25 = 3b + h$

$5.25 = b + 2h$

c. $b = 2.25,\ h = 1.5$

d. Burgers cost $2.25 and hot dogs cost $.50.