

Answers to College Algebra Review for Test 1

1.  $-(x+5)$

2.  $\frac{1}{x+1}$

3.  $\frac{3(x+3)}{x+4}$

4.  $\frac{x+3}{(x-2)(x+1)}$

5.  $\frac{x^2+2x+6}{(x-1)(x+2)}$

6.  $\frac{-x+3}{(x+1)^2(x-1)}$

7.  $\frac{5x-6}{x(x-1)}$

8.  $\frac{x}{y}$

9.  $\frac{-1}{a(a+h)}$

10.  $\frac{1}{(1+x^2)^{\frac{3}{2}}}$

11. 30

12.  $\frac{23}{6}$

13.  $11, -\frac{3}{2}$

14.  $2 \pm \sqrt{2}$

15.  $\frac{-4 \pm \sqrt{14}}{2}$

16.  $\frac{3 \pm \sqrt{7}}{2}$

17.  $0, \frac{4}{3}$

18. 8

19. 1, 2

20.  $\frac{7}{3}, \frac{1}{3}$

21.  $\left[1, \frac{23}{2}\right]$

22.  $\left(-\infty, -\frac{1}{3}\right) \cup (1, \infty)$

23.  $\left[-2, \frac{1}{2}\right]$

24. Center  $(0, -5)$  radius  $2\sqrt{2}$

25.  $(x-5)^2 + (y-10)^2 = 5$

26. x axis only

27. a.  $\left(\frac{13}{2}, 0\right)$  b.  $\left(0, -\frac{13}{5}\right)$  c.  $m = \frac{2}{5}$

d.  $y = -\frac{5}{2}x + \frac{1}{2}$

28. a.  $y = -\frac{6}{5}x + \frac{28}{5}$  b.  $x = 3$  c.  $y = -2$