

## Answers to Diagnostic Review

1. -64

2. 13

3.  $12x - 30y + 5$

4.  $\frac{1}{x+3}$

5.  $\frac{x^2 + 4}{5x^2}$

6.  $\frac{-3x^2 - 2x - 7}{(x+2)(x+3)}$

7.  $\frac{x^2 + y^2}{xy}$

8.  $\frac{x^2 y^2}{x^2 + 2xy + y^2}$

9.  $9x^2 + 30xy + 25y^2$

10.  $4x^2 - 25y^2$

11.  $8x^3 + 27$

12.  $\frac{x}{18y^4 z^2}$

13.  $\frac{7\sqrt{2(x+4)}}{4(x+4)}$

14.  $\frac{5xy}{4}$

15.  $6x^2 - 27x - 8$

16.  $(x+y)(x-y)$

17.  $(3-b)(9+3b+b^2)$

18.  $(2a-3b)^2$

19.  $(2x+5)(x+3)$

20.  $\frac{3}{2}$

21.  $\frac{33}{12}$

22.  $-\frac{1}{2}$

23.  $-\frac{1}{3}$

24.  $\frac{2}{3}$  and  $-5$

25.  $-3$  and  $-4$

26. 

27.  $(-\infty, -\frac{18}{5}]$

28.  $x=1$   $y=2$

29.  $7x - 3y = 26$  or  $y = \frac{7}{3}x - \frac{26}{3}$

30.  $\text{slope} = \frac{3}{4}$   $y$ -intercept: 3 or (0,3)

31. 108 sq. ft (Picture not drawn to scale)

32. 10 two dollar bills

33. 693 Cattle

34. 9 yrs. old