

1 $18x^2y^4$

2 $2x^2 - 13x + 8$

3 $\frac{x^2 - x + 1}{x + 1}$

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

5 x^4y^4

6 $\sqrt{7} - 2$

7 $\{10\}$

8 12 hours

9 $\{-4, 1\}$

10 $\left\{ \frac{1 \pm \sqrt{33}i}{4} \right\}$

11 $\{\pm 2, \pm i\}$

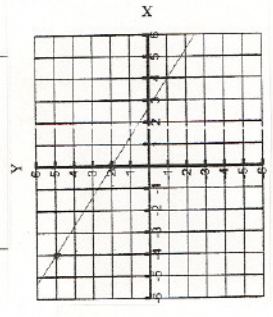
12 $\{0\}$

13 $x < 4$
or $(-\infty, 4)$

14 $x < -2$ or $x \geq 5$
OR $(-\infty, -2) \cup [5, \infty)$

15 $d = \sqrt{20}$
 $= 2\sqrt{5}$

16 $m = -\frac{3}{4}$



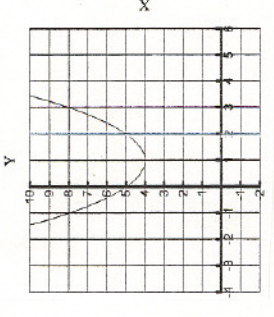
17 $y = 3x - 13$
or $3x - y - 13 = 0$

18 Center: $(-3, 1)$
radius = 5 units

19 $Z = \frac{8x}{3\sqrt{y}}$

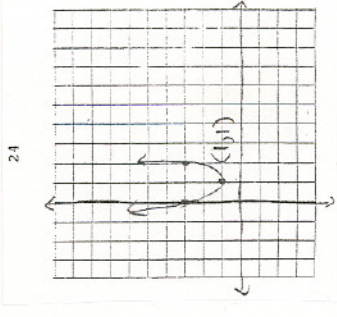
20 $\{x \mid x \neq -15\}$

21 $f(a) = 5$



22 $(f \circ g)(x) = (\sqrt[3]{x-5})^3 + 5$
or $(f \circ g)(x) = x$

23 $f^{-1}(x) = \frac{5-3x}{2x}$



25 remainder = 1

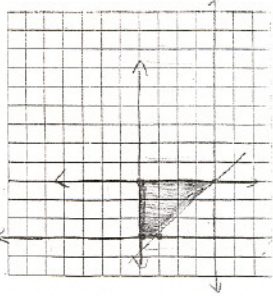
26 \$29,252.63

27 $\{2\}$

28 $\left\{ \frac{1}{2} \left(\frac{\ln 15}{\ln 3} - 1 \right) \right\}$
or $\{0.732\}$

29 $x = -2, y = 0, z = 1$
or $\{-2, 0, 1\}$

30 Maximum = 9
occurs at $(3, 0)$



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