

$$86. \quad r^2 - 2arsin\theta = 0$$

$$r(r - 2asin\theta) = 0$$

$$r = 2asin\theta$$

$$89. \quad y^3 = x^2$$

$$\frac{r^3 \sin^3\theta}{r^2 \sin^2\theta} = \frac{r^2 \cos^2\theta}{r^2 \sin^2\theta}$$

$$r = \cot^2\theta \csc\theta$$

$$95. \quad \theta = 2\pi/3$$

$$\tan\theta = \tan 2\pi/3$$

$$\frac{y}{x} = -\sqrt{3}$$

$$y = -\sqrt{3}x$$

$$98. \quad \theta = 5\pi/6$$

$$\tan\theta = \tan 5\pi/6$$

$$\frac{y}{x} = \frac{\sqrt{3}}{3}$$

$$y = \frac{\sqrt{3}}{3}x$$

$$101. \quad r = 4 \csc\theta$$

$$r = \frac{4}{\sin\theta}$$

$$r \sin\theta = 4$$

$$y = 4$$

$$104. \quad r = -\sec\theta = \frac{-1}{\cos\theta}$$

$$r \cos\theta = -1$$

$$x = -1$$

$$107. \quad r^2 = \sin 2\theta$$

$$(r^2 = 2 \sin\theta \cos\theta) r^2$$

$$r^4 = 2r \sin\theta \cdot r \cos\theta$$

$$(x^2 + y^2)^2 = 2xy$$

$$113. \quad r = \frac{6}{2 - 3\sin\theta}$$

$$2r - 3r \sin\theta = 6$$

$$2\sqrt{x^2 + y^2} - 3y = 6$$

$$2\sqrt{x^2 + y^2} = 6 + 3y$$

$$4(x^2 + y^2) = 36 + 36y + 9y^2$$

$$4x^2 - 5y^2 - 36y = 36$$

$$92. \quad (r = 2\cos\theta) r$$

$$r^2 = 2r \cos\theta$$

$$x^2 + y^2 = 2x$$

$$(x^2 - 2x) + y^2 = 0 + 1$$

$$(x-1)^2 + y^2 = 1$$

p. 745

$$71. x^2 + y^2 = 9$$

$$r^2 = 9$$

$$r = 3$$

$$74. y = -x$$

$$r \sin \theta = -r \cos \theta$$

$$\tan \theta = -1$$

$$\theta = 3\pi/4$$

$$77. y = 1$$

$$r \sin \theta = 1$$

$$r = \frac{1}{\sin \theta}$$

$$r = \csc \theta$$

$$80. 3r \cos \theta + 5r \sin \theta - 2 = 0$$

$$r(3 \cos \theta + 5 \sin \theta) = 2$$

$$r = \frac{2}{3 \cos \theta + 5 \sin \theta}$$

$$83. x^2 + y^2 = a^2$$

$$r^2 = a^2$$

$$r = a$$

$$116. r = \frac{5}{\sin\theta - 4\cos\theta}$$

$$r(\sin\theta - 4\cos\theta) = 5$$

$$r\sin\theta - 4r\cos\theta = 5$$

$$y - 4x = 5$$

$$y = 4x + 5$$

---