1. Express in equivalent form: log x + log 1 – 6 log (y + 4)
2. Points (4, –7) and (6, 3) are endpoints of the diameter of a circle./

(a) What is the exact length of the diameter?

(b) What is the center of the circle?

(c) What is the equation of the circle?

1. Given y = 9 sin(8x – p), state the

(a) period

(b) phase shift

1. Solve the trigonometric equation (sin x)(2cos x − 1) = 0 in the interval [0, 360°).

(a) Find the exact value of arccos sin( 3π/ 2 )

(b) Find the exact value of arcsin sin( 2π/3 )

1. Solve. ( x+13/x+6 ) + ( 84/ x^2-36) = 0
2. Suppose that sin q = 5/13 and that q is a Quadrant II angle.

(a) Find the exact value of cos ϴ

(b) Find the exact value of sin 2ϴ.

1. Prove the identity 1 – (sin x – cos x)2 = sin 2x