

Pre Calc H

Summer Test Review Sheet

① Solve for x :

$$\log(x+2) + \log(x-2) - \log 3 = \log 4$$

② Solve for x (Leave in terms of \log or \ln)

~~2 + 2 = 4~~ $e^{3x} = 14$

③ Factor:

$$3x^2y^2 - 14xy - 5$$

④ Solve by any method. Leave in simplest radical form:

$$x^2 - 10x + 4 = 0$$

5) Expand $(3x - 2y)^4$

6) Simplify (a) $\sqrt{80 a^5 b^7}$

(b) $\sqrt[3]{54 x^6 y^{10}}$

7) Rationalize

(a) $\frac{\sqrt{4} - 3}{2 + \sqrt{7}}$

(b) $\frac{2}{2 - \sqrt{3}}$

8) Find the domain

$$f(x) = \frac{5}{\sqrt{2x-1}}$$

$$(9) \quad \int f(x) = 3x^2 + 4x + 1$$

a) give $f(-1)$

b) give $f(a+2)$

(10) Simplify $2^3 \cdot 64^{-2/3}$

(11) Solve:

a) $(m-2)^{3/2} = 27$

b) $\log_x 16 = 2$