1. p027e04 - Resuelve las siguientes ecuaciones exponenciales:

   (a) $10^{3-x} = 1$

   Sol: [3]

   (b) $5^{x+3} = 125$

   Sol: [0]

   (c) $5^{1-x^2} = \frac{1}{125}$

   Sol: [-2,0,   2,0]

   (d) $5^{x^2-5x+6} = 1$

   Sol: [2,   3]

   (e) $2^{1-x} = \frac{1}{8}$

   Sol: [4,0]

   (f) $2^{x+3} = 4^{-x}$

   Sol: [-1]

   (g) $3 + x = -2x$

   Sol: [-1]

   (h) $9^{x-1} = 3^{x+1}$

   Sol: [3]

   (i) $4^{4x+3} = 2^{-x}$

   Sol: $\left[-\frac{2}{3}\right]$

2. p028e05 - Resuelve las siguientes ecuaciones exponenciales:

   (a) $3^{x+1} + 3^x + 3^{x-1} = 117$

   Sol: [3]

   (b) $3^x + 3^{x-1} + 3^{x-2} + 3^{x-3} + 3^{x-4} = 363$

   Sol: [5]

   (c) $2^{3x} - \frac{3}{2^{3x+2}} + 1 = 0$

   Sol: $\left[-\frac{1}{3}\right]$

   (d) $3^{x-1} + 3^{2-x} = 4$

   Sol: [1,   2]

   (e) $2^{x+1} + 4^x = 80$

   Sol: [3]

   (f) $2^{2x} - 3 \cdot 2^{x+1} + 8 = 0$

   Sol: [1,   2]

   (g) $3^{2x-3} + 1 = 4 \cdot 3^{x-2}$

   Sol: [1,   2]

   (h) $2^{2x} - 10 \cdot 2^x + 16 = 0$

   Sol: [1,   3]

   (i) $16^x - 4^x = 240$

   Sol: [2]

   (j) $9^x - 6 \cdot 3^{x+1} + 81 = 0$

   Sol: [2]

   (k) $3^{x+2} + 9^{x+1} = 810$

Sol: [2]

Sol: [3]

(l) $5^{x-1} = 2 + \frac{3}{5^{x-2}}$

(n) $4^{2x} + 16 \cdot 4^{-2x} - 10 = 0$

Sol: [2]

Sol: $\left[\frac{\log\left(\sqrt{2}\right)}{\log\left(4\right)}, \quad \frac{\log\left(2\sqrt{2}\right)}{\log\left(4\right)} \right]$

(m) $3^{x+1} + 3^{x-2} = \frac{15}{3^{x-1}} + \frac{247}{3^{x-2}}$

3. p028e07 - Calcula:

(a) $\log 100$

Sol: 2

(e) $\log_2(1024)$

Sol: 10

(i) $\log(10^6)$

Sol: 6

(m) $\log 0,000001$

Sol: -6

(b) $\log_5(625)$

Sol: 4

(f) $\log 1000$

Sol: 3

(j) $\log 0,1$

Sol: -1

(n) $\log_5(625)$

Sol: 4

(c) $\log_2(32)$

Sol: 5

(g) $\log 10000$

Sol: 4

(k) $\log 0,01$

Sol: -2

(ñ) $\log_2(4)$

Sol: 2

(d) $\log_3(81)$

Sol: 4

(h) $\log 1000000$

Sol: 6

(l) $\log 0,001$

Sol: -3

(o) $\log_2(64)$

Sol: 6

4. p028e07b - Calcula (continuación):

(a) $\log_2(\frac{1}{2})$

Sol: -1

Sol: $\frac{3}{2}$

Sol: -1

Sol: 0

(e) $\log_3(3)$

Sol: 1

(i) $\log_3(\frac{1}{9})$

Sol: -2

(m) $\log_{0,01}(10^{-3})$

Sol: $\frac{3}{2}$

(b) $\log_2(\frac{1}{4})$

Sol: -2

(f) $\log_3(27)$

Sol: 3

(j) $\log_3 \sqrt[3]{3}$

Sol: $\frac{1}{3}$

(n) $\log_{\frac{1}{49}}(7)$

Sol: $-\frac{1}{2}$

(c) $\log_2(\sqrt{2})$

Sol: $\frac{1}{2}$

(g) $\log_3(27)$

Sol: 3

(k) $\log_{\frac{1}{3}}(81)$

Sol: -4

(ñ) $\log_{\frac{1}{5}}\left(\frac{1}{25}\right)^{\frac{1}{5}}$

Sol: $\sqrt[5]{2}$

(d) $\log_2(\sqrt{8})$

(h) $\log_3(\frac{1}{3})$

(l) $\log_{0,8}(1)$