Homework: Homework VIII (5.4 - 5.6)

Save

Score: 0 of 3 pts   ◄ 1 of 43 (0 complete) ▼ ►   **HW Score:** 7.19%, 10 of 139 pts

5.4.25   ▶ Assigned Media   ☰ Question Help   ⚙

Express $\log_b \dfrac{p^3 q^7}{m^5 b^8}$ in terms of sums and differences of logarithms.

Choose the correct answer below.

○ **A.** $\log_b \dfrac{p^3 q^7}{m^5 b^8} = 3 \log_b pq + 7 - 5 \log_b m - 8 \log_b b$

○ **B.** $\log_b \dfrac{p^3 q^7}{m^5 b^8} = 3 \log_b p + 7 \log_b q - 5 \log_b m - 8$

○ **C.** $\log_b \dfrac{p^3 q^7}{m^5 b^8} = \log_b 3 + 7 \log_b pq - \log_b 5 + \log_b m + \log_b 8$

○ **D.** $\log_b \dfrac{p^3 q^7}{m^5 b^8} = \log_b 3p + \log_b 7q - \log_b 5m - 8$

Click to select your answer and then click Check Answer.   ?

All parts showing   ▭▭▭▭   Clear All   Check Answer   ◄ ▶

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Homework: Homework VIII (5.4 - 5.6)

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Score: 0 of 3 pts   ◀ 2 of 43 (0 complete) ▼ ▶   **HW Score:** 7.19%, 10 of 139 pts

5.4.27 | ▶ Assigned Media | ☰ Question Help | ⚙

Express in terms of sums and differences of logarithms.

$$\ln \frac{7}{5x^5y}$$

$$\ln \frac{7}{5x^5y} = \boxed{}$$

Enter your answer in the answer box and then click Check Answer.   ?

All parts showing [▬▬▬▬▬▬]   Clear All   Check Answer   ◀ ▶

Homework: Homework VIII (5.4 - 5.6)

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Score: 0 of 3 pts

HW Score: 7.19%, 10 of 139 pts

5.4.29

▶ Assigned Media   :≡ Question Help   ⚙

Express in terms of sums and differences of logarithms.

$\log \sqrt{b^4 c}$

$\log \sqrt{b^4 c} = \boxed{}$

Enter your answer in the answer box and then click Check Answer.   ?

All parts showing   [▬▬▬▬▬]   Clear All   Check Answer   ◀ ▶

Homework: Homework VIII (5.4 - 5.6)

Save

Score: 0 of 3 pts   ◄ 4 of 43 (0 complete) ▼ ►   **HW Score:** 7.19%, 10 of 139 pts

5.4.31   📺 Assigned Media   ☰ Question Help

Express as a sum or difference of logarithms without exponents.

$$\log_b \sqrt[6]{\frac{x^7}{y^6 z^5}}$$

What is the equivalent sum or difference of logarithms?

☐

(Simplify your answer. Use integers or fractions for any numbers in the expression.)

Enter your answer in the answer box and then click Check Answer.

All parts showing   [▓▓▓▓▓]   Clear All   **Check Answer**   ◄ ►

Homework: Homework VIII (5.4 - 5.6)

Save

Score: 0 of 3 pts   ◀ 5 of 43 (0 complete) ▼ ▶   **HW Score:** 7.19%, 10 of 139 pts

5.4.33   ▶ Assigned Media   ☰ Question Help   ⚙

Express in terms of logarithms without exponents.

$$\log_c\left(\sqrt[4]{\frac{m^8 n^{20}}{c^9}}\right)$$

What is the equivalent sum or difference of logarithms?

☐

(Simplify your answer.)

Enter your answer in the answer box and then click Check Answer.

All parts showing   [████████████]   Clear All   Check Answer   ◀ ▶

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Homework: Homework VIII (5.4 - 5.6)

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Score: 0 of 3 pts

◀   6 of 43 (0 complete) ▼   ▶

HW Score: 7.19%, 10 of 139 pts

5.4.39

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Express as a single logarithm and, if possible, simplify.

$$\frac{1}{2}\log c + 4 \log d$$

$$\frac{1}{2}\log c + 4 \log d = \boxed{}$$

(Use parentheses to indicate the argument of the logarithm.)

Enter your answer in the answer box and then click Check Answer.

All parts showing   Clear All   Check Answer   ◀ ▶

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Homework: Homework VIII (5.4 - 5.6)

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Score: 0 of 3 pts

◀ | 7 of 43 (0 complete) ▼ | ▶

HW Score: 7.19%, 10 of 139 pts

5.4.41

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Express as a single logarithm and simplify, if possible.

$$\frac{1}{2} \log_c x + 3 \log_c y - 2 \log_c x$$

$\frac{1}{2} \log_c x + 3 \log_c y - 2 \log_c x = \boxed{}$

(Type your answer using exponential notation. Use integers or fractions for any numbers in the expression.)

Enter your answer in the answer box and then click Check Answer.

All parts showing ▮▮▮▮▮ | Clear All | Check Answer | ◀ ▶

Homework: Homework VIII (5.4 - 5.6)

Save

Score: 0 of 3 pts

◀ 8 of 43 (0 complete) ▼ ▶

HW Score: 7.19%, 10 of 139 pts

5.4.43

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Express as a single logarithm and, if possible, simplify.

$$\ln x^6 - 5 \ln \sqrt[5]{x^4}$$

$\ln x^6 - 5 \ln \sqrt[5]{x^4} = \boxed{}$ (Simplify your answer.)

Enter your answer in the answer box and then click Check Answer.

All parts showing   [▓▓▓▓▓▓▓▓▓]

Clear All

Check Answer   ◀ ▶

Homework: Homework VIII (5.4 - 5.6)

Save

Score: 0 of 3 pts   ◀   9 of 43 (0 complete) ▼   ▶   **HW Score:** 7.19%, 10 of 139 pts

5.4.45   ▶ Assigned Media   ☰ Question Help   ⚙

Simplify the expression.

$\ln\left(x^2 + 10x + 16\right) - \ln(x + 8)$

Choose the correct answer below.

○ **A.** $\ln\left(x^2 + 9x + 8\right)$

○ **C.** $\ln(x + 2)$

○ **B.** $\ln\left(x^3 + 18x^2 + 96x + 128\right)$

○ **D.** $\ln\dfrac{x^2 + 10x + 16}{x + 8}$

Click to select your answer and then click Check Answer.

All parts showing   [▬▬▬▬▬▬]   Clear All   Check Answer   ◀ ▶

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Score: 0 of 3 pts

◀   10 of 43 (0 complete) ▼   ▶

HW Score: 7.19%, 10 of 139 pts

5.4.49

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Express as a single logarithm and, if possible, simplify.

$\ln x - 3[\ln(x-6) + \ln(x+6)]$

$\ln x - 3[\ln(x-6) + \ln(x+6)] = \boxed{}$

Enter your answer in the answer box and then click Check Answer.

All parts showing   [■■■■■■■■]   Clear All   **Check Answer**   ◀ ▶

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Homework: Homework VIII (5.4 - 5.6)

Save

Score: 0 of 3 pts

HW Score: 7.19%, 10 of 139 pts

5.4.51

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Express as a single logarithm and simplify.

$$\frac{5}{2}\ln 16x^{10} - \frac{2}{5}\ln 2y^{10}$$

Choose the correct answer below.

○ **A.** $\ln \dfrac{2^{48/5}x^{25}}{y^4}$

○ **B.** $\ln \dfrac{2^{10}x^{25}}{2^{2/5}y^4}$

○ **C.** $\ln \dfrac{16^{5/2}x^{25}}{2^{2/5}y^4}$

○ **D.** $\ln \dfrac{2^{52/5}x^{25}}{y^4}$

Click to select your answer and then click Check Answer.

All parts showing   [▬▬▬▬▬]   Clear All   Check Answer   ◀   ▶

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Score: 0 of 3 pts   ◄ 12 of 43 (0 complete) ▼ ►   **HW Score:** 7.19%, 10 of 139 pts

5.4.57   ▶ Assigned Media   ≔ Question Help   ⚙

Use $\log_b 6 \approx 1.792$ and/or $\log_b 7 \approx 1.946$ to find $\dfrac{\log_b 6}{\log_b 7}$.

$\dfrac{\log_b 6}{\log_b 7} = \boxed{}$ (Round to the nearest thousandth.)

Enter your answer in the answer box and then click Check Answer.   ❓

All parts showing [▬▬▬▬▬▬]   Clear All   Check Answer   ◄ ►

Homework: Homework VIII (5.4 - 5.6)

Save

Score: 0 of 3 pts   ◀   13 of 43 (0 complete) ▼   ▶   **HW Score:** 7.19%, 10 of 139 pts

5.4.61   Assigned Media   Question Help   ⚙

Use $\log_b(7) = 1.946$ and/or $\log_b(4) = 1.386$ to find the logarithm of $\log_b\left(\dfrac{1}{7}\right)$.

$\log_b\left(\dfrac{1}{7}\right) = \boxed{}$

(Round to the nearest thousandth.)

Enter your answer in the answer box and then click Check Answer.

All parts showing   Clear All   **Check Answer**   ◀ ▶

Homework: Homework VIII (5.4 - 5.6)

Save

Score: 0 of 3 pts   ◄ **14 of 43 (0 complete)** ▼ ►   **HW Score:** 7.19%, 10 of 139 pts

5.4.63   ▶ Assigned Media   ☰ Question Help   ⚙

Given that $\log_c 3 \approx 0.899$, $\log_c 4 \approx 1.134$, and $\log_c 7 \approx 1.592$, find $\log_c \dfrac{4}{c}$.

$\log_c \dfrac{4}{c} \approx \boxed{}$ (Type an integer or a decimal.)

Enter your answer in the answer box and then click Check Answer.

All parts showing �_____ Clear All   **Check Answer** ◄ ►

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Homework: Homework VIII (5.4 - 5.6)   Save

Score: 0 of 3 pts   ◀ 15 of 43 (0 complete) ▼ ▶   **HW Score:** 7.19%, 10 of 139 pts

5.4.65   ▶ Assigned Media   ☰ Question Help   ⚙

Simplify.

$\log_q q^{12}$

$\log_q q^{12} = \boxed{}$
(Simplify your answer. Type an integer or a fraction.)

Enter your answer in the answer box and then click Check Answer.   ?

All parts showing   [████████████]   Clear All   Check Answer   ◀ ▶

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Homework: Homework VIII (5.4 - 5.6)

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Score: 0 of 3 pts

HW Score: 7.19%, 10 of 139 pts

5.4.73

📺 Assigned Media   ≣ Question Help   ⚙

Find the indicated value of the logarithmic function.

$\ln \left(e^{5x} \right)$

Choose the correct value of the logarithmic function.

○ **A.** e^{5x}

○ **B.** $\ln (5x)$

○ **C.** $e^{\ln (5x)}$

○ **D.** $5x$

Click to select your answer and then click Check Answer.

All parts showing   [ ]   Clear All   Check Answer   ◀ ▶

Homework: Homework VIII (5.4 - 5.6)

Save

Score: 0 of 3 pts

HW Score: 7.19%, 10 of 139 pts

5.4.75

📺 Assigned Media   ☰ Question Help   ⚙

Simplify.

$$\log_s \sqrt[3]{s}$$

$\log_s \sqrt[3]{s} = \boxed{}$

Enter your answer in the answer box and then click Check Answer.

All parts showing   [▬▬▬▬▬]   Clear All   Check Answer   ◀ ▶

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Score: 0 of 3 pts

◀ 18 of 43 (0 complete) ▶ ▶

HW Score: 7.19%, 10 of 139 pts

5.4.93

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Given that $\log_a x = 3$, $\log_a y = 4$, and $\log_a z = 5$, find the following.

$$\log_a \frac{\sqrt[3]{y^2 z^4}}{\sqrt[3]{x^2 z^{-4}}}$$

$\log_a \dfrac{\sqrt[3]{y^2 z^4}}{\sqrt[3]{x^2 z^{-4}}} = \boxed{}$ (Simplify your answer. Type an integer or a fraction.)

Enter your answer in the answer box and then click Check Answer.

All parts showing   Clear All   Check Answer   ◀ ▶

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Score: 0 of 3 pts

HW Score: 7.19%, 10 of 139 pts

5.4.101

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Suppose that $\log_a p = 11$. Find $\log_a\left(\dfrac{1}{p^3}\right)$.

$\log_a\left(\dfrac{1}{p^3}\right) = \boxed{}$ (Simplify your answer. Type an integer or a fraction.)

Enter your answer in the answer box and then click Check Answer.

All parts showing   Clear All   **Check Answer**   ◀   ▶

Homework: Homework VIII (5.4 - 5.6)

Save

Score: 0 of 3 pts   ◀ 20 of 43 (0 complete) ▼   ▶   **HW Score:** 7.19%, 10 of 139 pts

5.5.3   ▶ Assigned Media   ☰ Question Help   ⚙

Solve for x.

$3^{3x} = 9$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

○ **A.** The solution is x = ☐ .
     (Simplify your answer. Type an integer or a fraction. Use a comma to separate answers as needed.)

○ **B.** The solution is not a real number.

Click to select and enter your answer(s) and then click Check Answer.

All parts showing   [████████]   Clear All   Check Answer   ◀ ▶

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Score: 0 of 3 pts

◄ 21 of 43 (0 complete) ▼ ►

HW Score: 7.19%, 10 of 139 pts

5.5.5

▶ Assigned Media   ☰ Question Help   ⚙

Solve for x.

$5^x = 31$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

○ **A.** The solution is $x =$ ☐ .

(Type an integer or a decimal. Do not round until the final answer. Then round to four decimal places as needed. Use a comma to separate answers as needed.)

○ **B.** The solution is not a real number.

Click to select and enter your answer(s) and then click Check Answer.

All parts showing ▓▓▓▓▓

Clear All

Check Answer ◄ ►

Homework: Homework VIII (5.4 - 5.6)

Save

Score: 0 of 3 pts   **HW Score:** 7.19%, 10 of 139 pts

5.5.7   Assigned Media   Question Help

Solve for x.

$2^{8x-7} = 4$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

○ **A.** The solution is $x = \boxed{}$.
   (Type an integer or a simplified fraction. Use a comma to separate answers as needed.)

○ **B.** The solution is not a real number.

Click to select and enter your answer(s) and then click Check Answer.

All parts showing   Clear All   Check Answer   ◀ ▶

Homework: Homework VIII (5.4 - 5.6)

Save

Score: 0 of 3 pts   ◄   23 of 43 (0 complete) ▼   ►   **HW Score:** 7.19%, 10 of 139 pts

5.5.9   Assigned Media   Question Help

Solve the following exponential equation.

$$9^{x^2} \cdot 3^{5x} = 27$$

Select the correct choice below and, if necessary, fill in the answer box.

○ **A.** The solution(s) is/are ☐.
   (Type an integer or a simplified fraction. Use a comma to separate answers as needed.)

○ **B.** The solution is not a real number.

Click to select and enter your answer(s) and then click Check Answer.

All parts showing   [████████████]   Clear All   Check Answer   ◄ ►

Homework: Homework VIII (5.4 - 5.6)

Save

Score: 0 of 3 pts   ◄ 24 of 43 (0 complete) ▼ ►   **HW Score:** 7.19%, 10 of 139 pts

5.5.17   📺 Assigned Media   ≣ Question Help   ⚙

Solve for t.

$e^t = 173$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

○ **A.** The solution is t = ☐ .
   (Type an integer or a decimal. Do not round until the final answer. Then round to four decimal places as needed. Use a comma to separate answers as needed.)

○ **B.** The solution is not a real number.

Click to select and enter your answer(s) and then click Check Answer.

All parts showing   Clear All   Check Answer   ◄ ►

Homework: Homework VIII (5.4 - 5.6)

Save

Score: 0 of 3 pts   ◀ 25 of 43 (0 complete) ▼ ▶   **HW Score:** 7.19%, 10 of 139 pts

5.5.27   ▶ Assigned Media   ☰ Question Help   ⚙

The following equation involves more than one exponential expression. Solve the equation.

$$4^{5x-2} = 6^x$$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

○ **A.** $x = \boxed{}$
   (Do not round until the final answer. Then round to four decimal places as needed.)

○ **B.** There is no solution.

Click to select and enter your answer(s) and then click Check Answer.

All parts showing   [=========]   Clear All   **Check Answer**   ◀ ▶

Homework: Homework VIII (5.4 - 5.6)

Save

Score: 0 of 3 pts   ◀ 26 of 43 (0 complete) ▼ ▶   **HW Score:** 7.19%, 10 of 139 pts

5.5.31   📺 Assigned Media   ☰ Question Help   ⚙

Solve for x.

$\log_5 x = 3$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

○ **A.** The solution is x = ☐ .
          (Simplify your answer. Type an integer or a fraction. Use a comma to separate answers as needed.)

○ **B.** The solution is not a real number.

Click to select and enter your answer(s) and then click Check Answer.

All parts showing   [▬▬▬▬▬]   Clear All   Check Answer   ◀ ▶

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Score: 0 of 3 pts

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HW Score: 7.19%, 10 of 139 pts

5.5.37

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Solve the following logarithmic equation.

$$\log_{81} \frac{1}{9} = x$$

Select the correct choice below and, if necessary, fill in the answer box.

○ **A.** The solution(s) is/are ☐ .
   (Simplify your answer. Type an integer or a fraction. Use a comma to separate answers as needed.)

○ **B.** The solution is not a real number.

Click to select and enter your answer(s) and then click Check Answer.

All parts showing   [████████████]

Clear All

Check Answer   ◄ ►

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Score: 0 of 3 pts

HW Score: 7.19%, 10 of 139 pts

5.5.39

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Solve for x.

$\log_2(2x - 5) = 1$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

○ **A.** The solution is $x =$ ☐ .
(Type an exact answer in simplified form. Use a comma to separate answers as needed.)

○ **B.** The solution is not a real number.

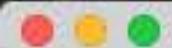Click to select and enter your answer(s) and then click Check Answer.

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Clear All

Check Answer   ◄ ►

Homework: Homework VIII (5.4 - 5.6)

Save

5.5.41   ▶ Assigned Media   ≡ Question Help   ⚙

Solve for x.

$\log x + \log (x - 21) = 2$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

◯ **A.** The solution(s) is/are $x = $ ☐ .
     (Type an integer or a simplified fraction. Use a comma to separate answers as needed.)

◯ **B.** There is no solution.

Click to select and enter your answer(s) and then click Check Answer.   ?

All parts showing   [▬▬▬▬▬▬]   Clear All   Check Answer   ◀ ▶

Homework: Homework VIII (5.4 - 5.6)

Save

Score: 0 of 3 pts

HW Score: 7.19%, 10 of 139 pts

5.5.43

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Solve the following logarithmic equation.

$$\log_4(t+16) - \log_4(t+7) = \log_4 t$$

Select the correct choice below and, if necessary, fill in the answer box.

○ **A.** The solution(s) is/are [   ].
(Simplify your answer. Type an integer or a fraction. Use a comma to separate answers as needed.)

○ **B.** The solution is not a real number.

Click to select and enter your answer(s) and then click Check Answer.

All parts showing   [████████   ]   Clear All   Check Answer   ◄ ►

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Homework: Homework VIII (5.4 - 5.6)

Save

5.5.45

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Solve for x.

$\log_2(x+1) - \log_2 x = 3$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

○ **A.** The solution is $x =$ ☐ .
   (Simplify your answer. Type an integer or a fraction. Use a comma to separate answers as needed.)

○ **B.** The equation has no solution.

Click to select and enter your answer(s) and then click Check Answer.

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Score: 0 of 3 pts

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HW Score: 7.19%, 10 of 139 pts

5.5.47

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Solve the following logarithmic equation algebraically.

$$\log_3(x) + \log_3(x+1) = \log_3 6$$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

◯ **A.** The solution is $x = \boxed{}$.
   (Simplify your answer. Type an integer or a fraction. Use a comma to separate answers.)

◯ **B.** The equation has no solution.

Click to select and enter your answer(s) and then click Check Answer.

All parts showing   [▓▓▓▓▓▓▓▓▓▓▓   ]   Clear All   **Check Answer**   ◀ ▶

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Homework: Homework VIII (5.4 - 5.6)

Save

Score: 0 of 3 pts   ◄ 33 of 43 (0 complete) ▼ ►   **HW Score:** 7.19%, 10 of 139 pts

5.5.49

▶ Assigned Media   ☰ Question Help   ⚙

Solve for x.

$\log 8x - \log (2x - 1) = \log 7$

The solution is $\{\ \ \}$.

(Simplify your answer. Type an integer or a fraction.)

Enter your answer in the answer box and then click Check Answer.

All parts showing   Clear All   Check Answer   ◄ ►

Homework: Homework VIII (5.4 - 5.6)

Save

Score: 0 of 3 pts

◀   34 of 43 (0 complete) ▼   ▶

HW Score: 7.19%, 10 of 139 pts

5.5.51

Assigned Media   Question Help

Solve for x.

$\log_3(x+4) + \log_3(x-4) = 2$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

○ **A.** The solution(s) is/are $x =$ ☐ .
   (Type an integer or a simplified fraction. Use a comma to separate answers as needed.)

○ **B.** There is no solution.

Click to select and enter your answer(s) and then click Check Answer.

All parts showing   Clear All   Check Answer   ◀   ▶

17SP_MAT171-I02Z_HinsonJ_Online   Lili McKeithan &👤 | 5/2/17 6:32 PM

Homework: Homework VIII (5.4 - 5.6)   **Save**

Score: 0 of 3 pts   ◀   35 of 43 (0 complete) ▼   ▶   **HW Score:** 7.19%, 10 of 139 pts

5.5.53   📺 Assigned Media   ≣ Question Help   ⚙

Solve the following logarithmic equation.

$$\log(6x + 7) - \log(x - 4) = 1$$

Select the correct choice below and, if necessary, fill in the answer box.

○ **A.** The solution is x = ☐ .
    (Type an integer or a simplified fraction.)
○ **B.** The solution is not a real number.

Click to select and enter your answer(s) and then click Check Answer.

All parts showing ▓▓▓▓▓▓▓   Clear All   **Check Answer**   ◀   ▶

Homework: Homework VIII (5.4 - 5.6)

Save

Score: 0 of 3 pts   ◀   36 of 43 (0 complete) ▼   ▶   **HW Score:** 7.19%, 10 of 139 pts

5.5.55   ▶️ Assigned Media   ≣ Question Help   ⚙

Solve the following logarithmic equation.

$\ln(x + 8) + \ln(x - 4) = 2 \ln x$

Select the correct choice below and, if necessary, fill in the answer box.

○ **A.** The solution(s) is/are ☐ .
   (Simplify your answer. Type an integer or a fraction. Use a comma to separate answers as needed.)

○ **B.** The solution is not a real number.

Click to select and enter your answer(s) and then click Check Answer.   ?

All parts showing   [▔▔▔▔▔▔▔]   Clear All   **Check Answer**   ◀   ▶

17SP_MAT171-I02Z_HinsonJ_Online   Lili McKeithan | 5/2/17 6:33 PM

Homework: Homework VIII (5.4 - 5.6)   Save

Score: 0 of 3 pts   ◄ 37 of 43 (0 complete) ▼ ►   **HW Score:** 7.19%, 10 of 139 pts

5.5.71   ▶ Assigned Media   ≡ Question Help   ⚙

Use a graphing calculator to solve for x.

$\log_3(4x - 9) - \log_3(x + 3) = 1$

The solution is x = ☐ .
(Use a comma to separate answers as needed. Round to the nearest thousandth.)

Enter your answer in the answer box and then click Check Answer.

All parts showing   [   ]   Clear All   Check Answer   ◄ ►

Homework: Homework VIII (5.4 - 5.6)

Save

Score: 0 of 3 pts   ◄ 38 of 43 (0 complete) ▼ ►   **HW Score:** 7.19%, 10 of 139 pts

5.5.85   ▶ Assigned Media   ≡ Question Help   ⚙

Solve.

$$(\log_3 x)^2 - \log_3 x^4 = 5$$

Select the correct choice below and, if necessary, fill in the answer box.

○ **A.** The solution(s) is/are x = ☐ .
   (Type an integer or a simplified fraction. Use a comma to separate answers as needed.)

○ **B.** There is no solution.

Click to select and enter your answer(s) and then click Check Answer.

All parts showing   [�████████   ]   Clear All   Check Answer   ◄ ►

Homework: Homework VIII (5.4 - 5.6)

Save

Score: 0 of 3 pts

HW Score: 7.19%, 10 of 139 pts

5.5.89

▶ Assigned Media   ≣ Question Help   ⚙

Solve the following exponential equation.

$$e^{2x} - 16 e^{x} + 15 = 0$$

Select the correct choice below and, if necessary, fill in the answer box.

○ **A.** The solution(s) is/are ☐ .

  (Type an integer or decimal rounded to the nearest hundredth as needed. Use a comma to separate answers as needed.)

○ **B.** The solution is not a real number.

Click to select and enter your answer(s) and then click Check Answer.

All parts showing   ▭   Clear All   Check Answer   ◀ ▶

Homework: Homework VIII (5.4 - 5.6)

Save

Score: 0 of 3 pts   ◄   40 of 43 (0 complete) ▼   ►   **HW Score:** 7.19%, 10 of 139 pts

5.6.3   📺 Assigned Media   ≣ Question Help   ⚙

Complete the following table.

Population	Growth Rate, k	Doubling Time, T
Country A	1.1% per year	
Country B		41 years

Population	Growth Rate, k	Doubling Time, T
Country A	1.1% per year	☐ years
Country B	☐ % per year	41 years

(Round doubling time to the nearest whole number and round growth rate to the nearest tenth.)

Enter your answer in the edit fields and then click Check Answer.

All parts showing   ▓▓▓▓▓▓   Clear All   **Check Answer**   ◄   ►

Homework: Homework VIII (5.4 - 5.6)

Save

Score: 0 of 3 pts   ◄ 41 of 43 (0 complete) ▼   ►   **HW Score:** 7.19%, 10 of 139 pts

5.6.5   ▶ Assigned Media   ☰ Question Help   ⚙

Country A has a growth rate of 2.6% per year. The population is currently 4,459,000, and the land area of Country A is 33,000,000,000 square yards. Assuming this growth rate continues and is exponential, after how long will there be one person for every square yard of land?

This will happen in [   ] years.
(Round to the nearest integer.)

Enter your answer in the answer box and then click Check Answer.

All parts showing   Clear All   Check Answer   ◄ ►

Homework: Homework VIII (5.4 - 5.6)

Save

Score: 0 of 3 pts   ◀   42 of 43 (0 complete) ▼   ▶   **HW Score:** 7.19%, 10 of 139 pts

5.6.7   ▶ Assigned Media   ☰ Question Help   ⚙

Suppose that P is invested in a savings account in which interest, k, is compounded continuously at 7% per year. The balance P(t) after time t, in years, is $P(t) = Pe^{kt}$.

a) What is the exponential growth function in terms of P and 0.07?

$P(t) = \square$

Enter your answer in the answer box and then click Check Answer.

2 parts remaining   Clear All   Check Answer   ◀   ▶

Homework: Homework VIII (5.4 - 5.6)

Save

Score: 0 of 3 pts

HW Score: 7.19%, 10 of 139 pts

5.6.41

▶ Assigned Media   ≣ Question Help   ⚙

Following the birth of a child, a parent wants to make an initial investment P_0 that will grow to $40,000 for the child's education at age 17. Interest is compounded continuously at 7%. What should the initial investment be? Such an amount is called the present value of $40,000 due 17 years from now.

The present value is about $ [ ].
(Do not round until the final answer. Then round to two decimal places as needed.)

Enter your answer in the answer box and then click Check Answer.

All parts showing   Clear All   Check Answer   ◀ ▶