

Use a calculator to estimate $\log 15$.

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1.1761

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1.5

☐

0.6667

☐

2.708

Use a calculator to estimate $\ln 3$

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0.4771

☐

20.0855

☐

1.0986

☐

1000

Use a calculator to estimate $e^{2.3}$.

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0.8329

☐

9.9742

☐

199.5262

☐

0.3617

Estimate the solution to the exponential equation using logarithms.

$$7^x = 16$$

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1.1293

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0.8451

☐

1.2041

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1.4248

Use logarithms to estimate the solution to the exponential inequality.

$$7^{p+2} \leq 13^{5-p}$$

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$$p \geq -14.4303$$

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$$p \leq 0.2688$$

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$$p \leq 1.9803$$

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$$p \leq 7.6001$$

Use a calculator to estimate $\log_4 30$.

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$$1.4771$$

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$$3.4012$$

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$$0.6021$$

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$$2.4534$$

Which of the following is equal to $\frac{\ln 15}{\ln a}$? Assume $a \neq 1$

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$$\log 15 - \log a$$

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$$\log_a 15$$

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$$\log_{15} a$$

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$$\ln 15 - \ln a$$

Write the logarithmic equation in exponential form.

$$\ln 16 \approx 2.7726$$

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$$e^{16} \approx 2.7726$$

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$$10^{2.7726} \approx 16$$

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$$e^{2.7726} \approx 16$$

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$$10^{16} \approx 2.7726$$

Solve the equation. Round to the nearest ten-thousandth.

$$3e^x - 1 = 0$$

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$$x = 1.0986$$

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$$x = -1.0986$$

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$$x = -0.9102$$

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$$x = 0.9102$$

Solve the inequality. Round to the nearest ten-thousandth.

$$e^{4x} \geq 16$$

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$$x \geq 0.6931$$

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$$x \geq 2$$

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$$x \geq 4$$

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$$x \geq -1.2274$$