Name: $\qquad$ Date: $\qquad$

| Learning Goal 8.1 | Solving exponential and logarithmic equations with same base <br> and with different bases, including base $e$. |
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## More Questions

| Power Law | Product Law | Quotient Law | Change of Base |
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1. Solve for $x$. State any restrictions on the variable and verify your answers.
a. $\log _{7} x+\log _{7} 4=\log _{7} 12$
b. $\log _{2}(x-6)=3-\log _{2}(x-4)$
c. $\quad \log _{3}\left(x^{2}-8 x\right)^{5}=10$
d. $\quad \log _{2}(x+3)^{2}=4$
