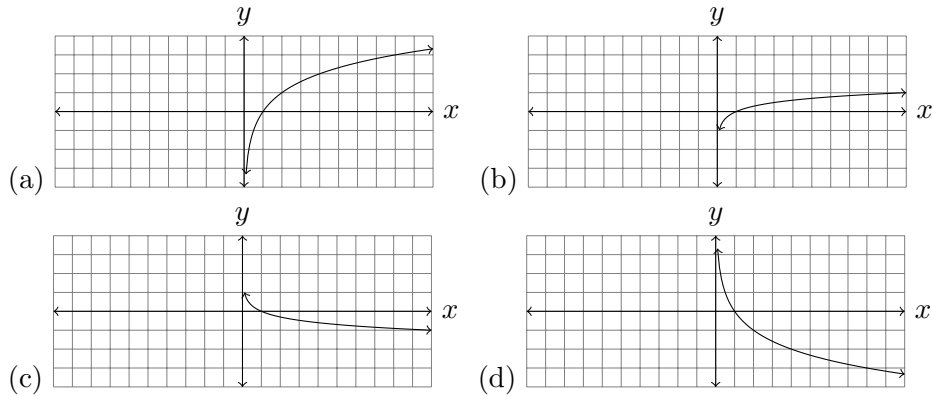


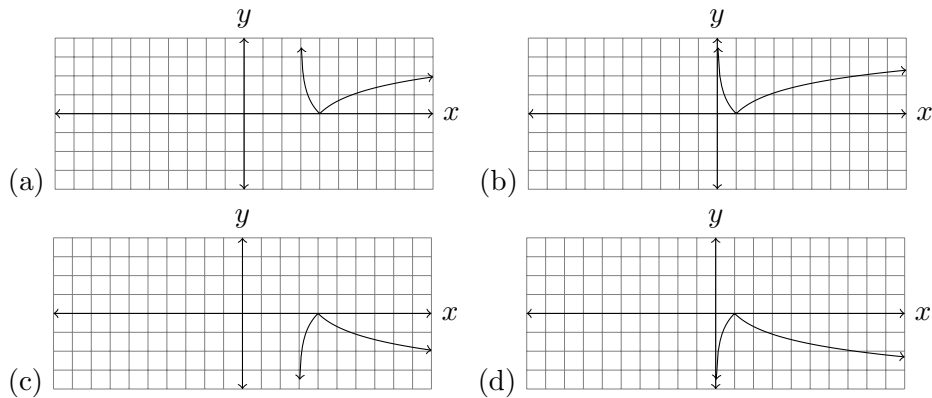
COLLEGE ALGEBRA QUIZ

(1) Which of the following is the graph of $f(x) = \log_2 x$?



Solution: a

(2) Which of the following is the graph of $f(x) = |\ln(x - 3)|$?



Solution: a

(3) Manually compute $\log_5(125)$

Solution: 3

(4) Manually compute $\ln e$.

Solution: 1

(5) Manually compute $\log_3(\sqrt{3})$.

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

(6) Manually compute $\log_2\sqrt[3]{2}$.

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

(7) Convert $\log_A(B) = C$ to an exponential equation.

Solution: $A^C = B$

(8) Convert $2^{-3} = \frac{1}{8}$ to a logarithmic equation.

Solution: $\log_2\left(\frac{1}{8}\right) = -3$

(9) Use the change of base formula to compute $\log_{64}(4)$.

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

(10) Which of the following is the domain of the logarithmic function $f(x) = \log(2x - 5)$

(a) $\left(\frac{5}{2}, \infty\right)$

(b) $\left(-\infty, \frac{5}{2}\right)$

(c) $(5, \infty)$

(d) $(-\infty, \infty)$

Solution: a