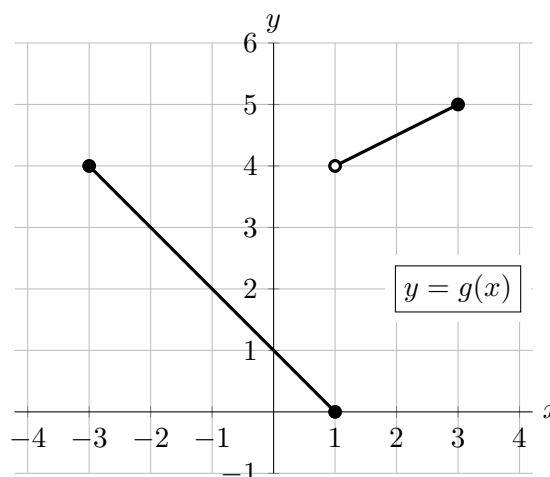
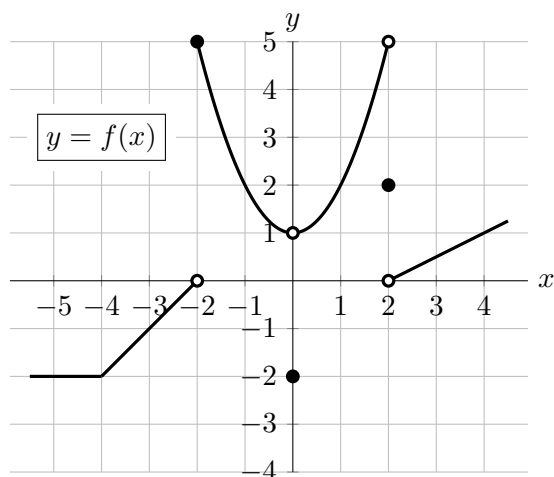


1. [19 points] The graphs of the functions $f(x)$ and $g(x)$ are shown below.



Note that the graph of $f(x)$ is linear for $x < -2$ and $x > 2$, and $g(x)$ is linear on $-3 < x < 1$ and $1 < x < 3$.

For each of the following parts, find the given limit. If any of the quantities do not exist (including the case of limits that diverge to ∞ or $-\infty$), write DNE. If the limit cannot be found based on the information given, write NOT ENOUGH INFO. *You do not need to show any work.*

a. [2 points] Find $\lim_{x \rightarrow -1} f(x)$.

Answer: 2

b. [2 points] Find $\lim_{t \rightarrow 2^-} 2(f(t) - 3)$.

Answer: 4

c. [2 points] Find $\lim_{x \rightarrow 1} f(x)g(x)$.

Answer: DNE

d. [2 points] Find $\lim_{x \rightarrow \infty} f(e^{-x})$.

Answer: 1

e. [2 points] Find $\lim_{x \rightarrow 2^+} g^{-1}(x)$.

Answer: -1

f. [2 points] Find $\lim_{h \rightarrow 0} \frac{f(3+h) - f(3)}{h}$.

Answer: 0.5

