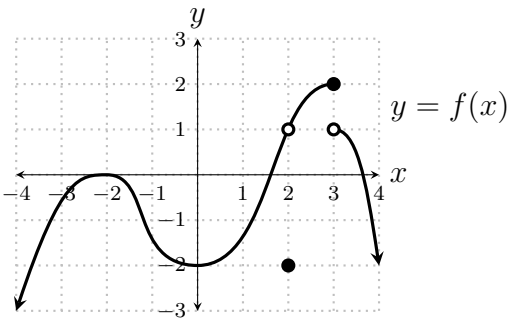
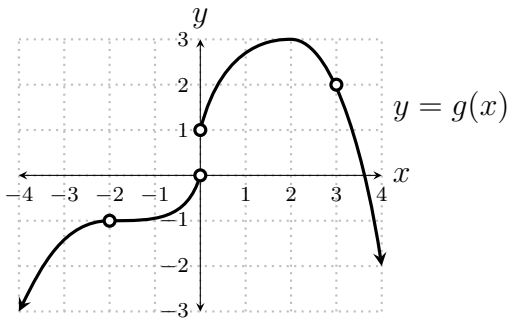
Name: _____

Quiz 1 ⊡

MATH 200
August 30, 2021

1. Answer the questions about the functions graphed below.





(a) $\lim_{x\to 3} f(x) =$

(b) $\lim_{x\to 2} \big(2f(x) - g(x)\big) =$

(c) $\lim_{x\to 3} g(x) =$

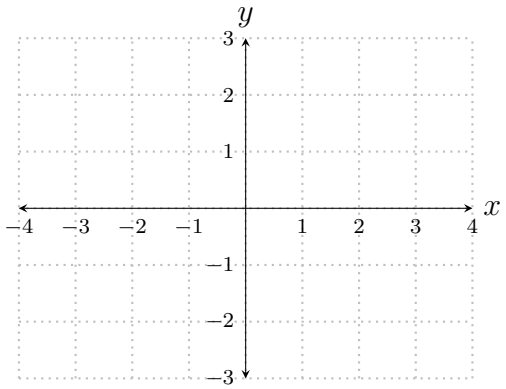
(d) $\lim_{x\to 3^+} f(x) =$

(e) $\lim_{x\to -2} \dfrac{3+g(x)}{\big(1+f(x)\big)^2} =$

2. $\lim_{x\to 2} \sqrt{6x - x^2 + 1} \; =$

3. $\lim_{x\to 3} \dfrac{1}{\sqrt{3}+\sqrt{x}} \; =$

4. Draw the graph of **one** function f, with domain $(-4, 4)$, meeting **all** of the following conditions.



(a) $\lim_{x\to -3^-} f(x) = 2$

(b) $\lim_{x\to -3^+} f(x) = -1$

(c) $\lim_{x\to 1} f(x) = 2$

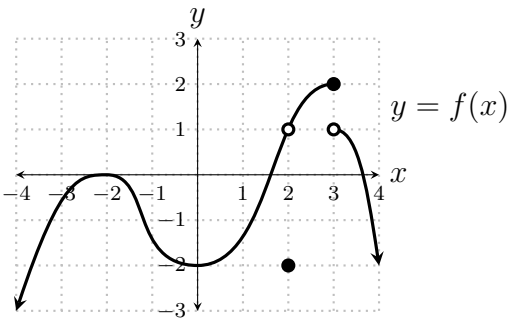
(d) $f(1) = 3$

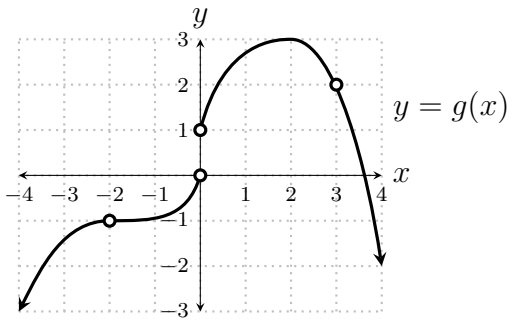
Name: _____

Quiz 1 ⚀

MATH 200
August 30, 2021

1. Answer the questions about the functions graphed below.





   (a) $\lim_{x\to 0} f(x) =$

   (b) $\lim_{x\to 2} g(x) =$

   (c) $\lim_{x\to 2} \big(2f(x) + g(x)\big) =$

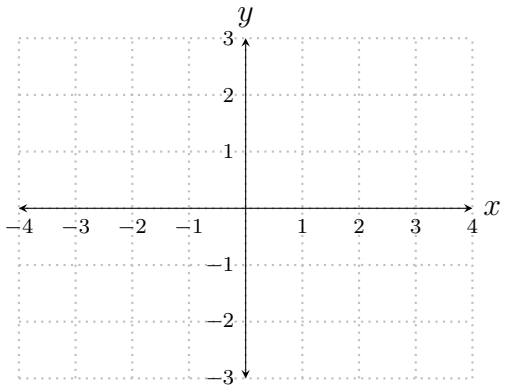
   (d) $\lim_{x\to 0^+} g(x) =$

   (e) $\lim_{x\to -2} \dfrac{3 + g(x)}{\sqrt{1 + f(x)}} =$

2. $\lim_{x\to 3} \big(6x - x^2 + 1\big)^2 =$

3. $\lim_{x\to 2} \dfrac{1}{\sqrt{2} + \sqrt{x}} =$

4. Draw the graph of **one** function f, with domain $(-4, 4)$, meeting **all** of the following conditions.



   (a) $\lim_{x\to 3^-} f(x) = 2$

   (b) $\lim_{x\to 3^+} f(x) = 3$

   (c) $\lim_{x\to -1} f(x) = 2$

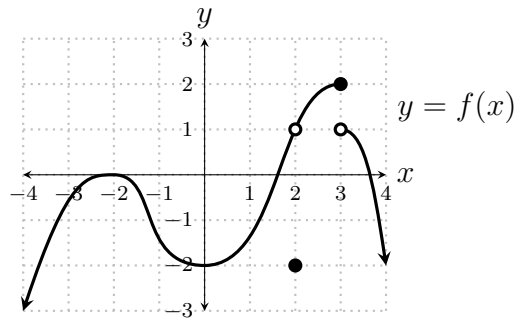
   (d) $f(-1) = 3$

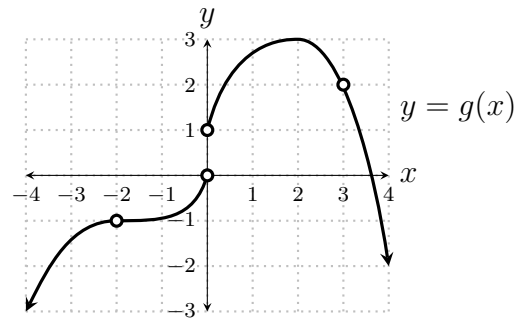
Name: _____

Quiz 1 ⚄

MATH 200
August 30, 2021

1. Answer the questions about the functions graphed below.





   (a) $\lim_{x \to -2} f(x) =$

   (b) $\lim_{x \to -2} g(x) =$

   (c) $\lim_{x \to -2} \big(f(x) - 7g(x)\big) =$

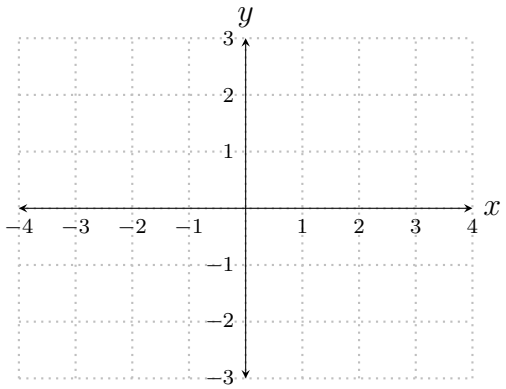
   (d) $\lim_{x \to 0^-} g(x) =$

   (e) $\lim_{x \to 2} \dfrac{3 + g(x)}{\big(1 + f(x)\big)^2} =$

2. $\lim_{x \to 3} \sqrt{6x - x^2 + 1} \; =$

3. $\lim_{x \to 3} \dfrac{1}{5 + \sqrt{x + 1}} \; =$

4. Draw the graph of **one** function f, with domain $(-4, 4)$, meeting **all** of the following conditions.



   (a) $\lim_{x \to 0^-} f(x) = -2$

   (b) $\lim_{x \to 0+} f(x) = 1$

   (c) $\lim_{x \to 2} f(x) = 3$

   (d) $f(2) = -1$

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Quiz 1 ⚄

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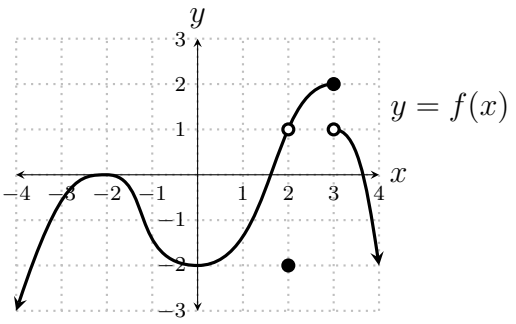
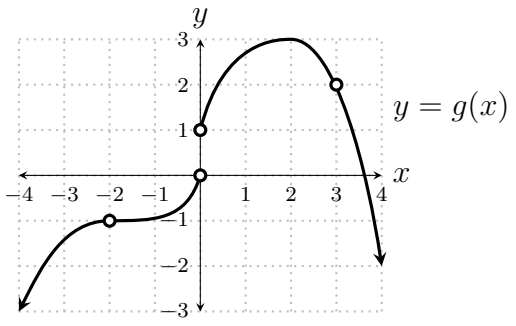
August 30, 2021

1. Answer the questions about the functions graphed below.





   (a) $\lim_{x\to 2} g(x) =$

   (b) $\lim_{x\to -2} g(x) =$

   (c) $\lim_{x\to 2} \big(2f(x) - g(x)\big) =$

   (d) $\lim_{x\to 3^+} f(x) =$

   (e) $\lim_{x\to -2} \dfrac{3 + f(x)}{\big(6 + g(x)\big)^2} =$

2. $\lim_{x\to -1} \sqrt{6x - x^2 + 11} \; =$

3. $\lim_{x\to 5} \dfrac{3}{5 + \sqrt{x - 1}} \; =$

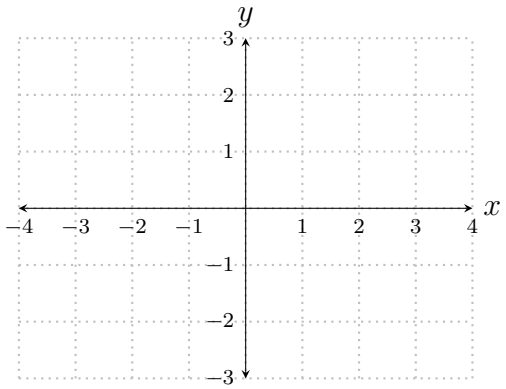
4. Draw the graph of **one** function f, with domain $(-4, 4)$, meeting **all** of the following conditions.

   (a) $\lim_{x\to 1^-} f(x) = 2$

   (b) $\lim_{x\to 1^+} f(x) = -1$

   (c) $\lim_{x\to -2} f(x) = 1$

   (d) $f(-2) = -1$



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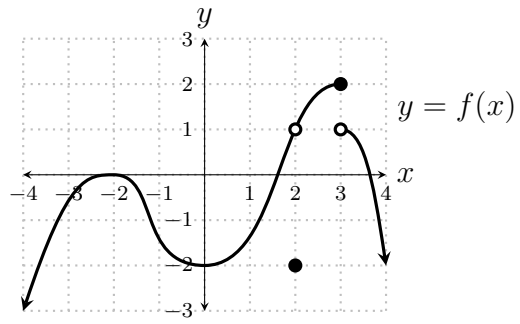
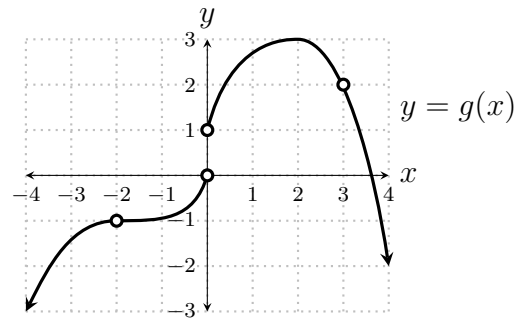
1. Answer the questions about the functions graphed below.





   (a) $\lim_{x\to 3} g(x) =$

   (b) $\lim_{x\to 3} f(x) =$

   (c) $\lim_{x\to 2} \big(f(x) + 2g(x)\big) =$

   (d) $\lim_{x\to 3^-} f(x) =$

   (e) $\lim_{x\to 2} \dfrac{3 + f(x)}{\sqrt{1 + g(x)}} =$

2. $\lim_{x\to 1} \big(6x - x^2 + 1\big)^2 =$

3. $\lim_{x\to 3} \dfrac{\sqrt{x}}{\sqrt{3} + \sqrt{x}} =$

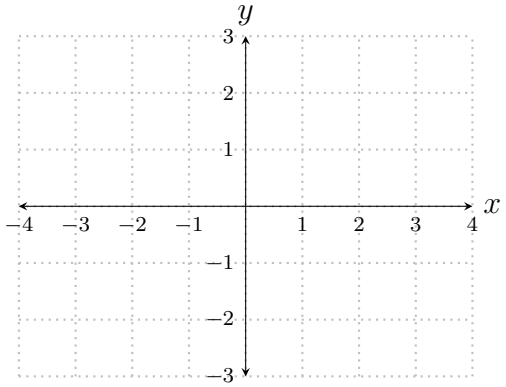
4. Draw the graph of **one** function f, with domain $(-4, 4)$, meeting **all** of the following conditions.

   (a) $\lim_{x\to -3^+} f(x) = 2$

   (b) $\lim_{x\to -3^-} f(x) = -1$

   (c) $\lim_{x\to 2} f(x) = 1$

   (d) $f(2) = 3$



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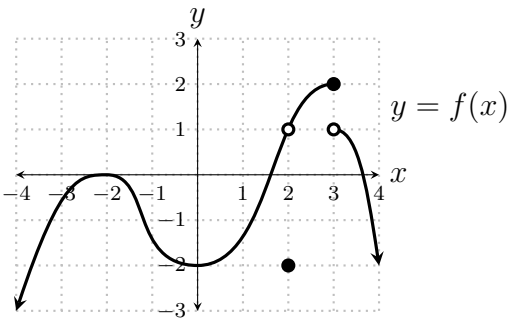
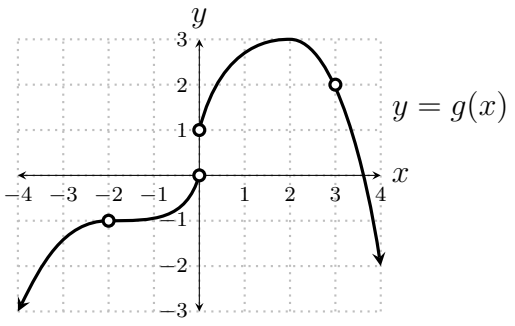
1. Answer the questions about the functions graphed below.





   (a) $\lim_{x \to 3^+} f(x) =$

   (b) $\lim_{x \to 3^-} f(x) =$

   (c) $\lim_{x \to -2} g(x) =$

   (d) $\lim_{x \to -2} \big(f(x) - 3g(x)\big) =$

   (e) $\lim_{x \to -2} \dfrac{\sqrt{3 + g(x)}}{1 + f(x)} =$

2. $\lim_{x \to 2} \left(4x - x^2 - 2\right)^3 =$

3. $\lim_{x \to 1} \dfrac{2\sqrt{x+1}}{\sqrt{2} + \sqrt{x+1}} =$

4. Draw the graph of **one** function f, with domain $(-4, 4)$, meeting **all** of the following conditions.

   (a) $\lim_{x \to 3^+} f(x) = 2$

   (b) $\lim_{x \to 3^-} f(x) = -1$

   (c) $\lim_{x \to -1} f(x) = 2$

   (d) $f(-1) = 3$