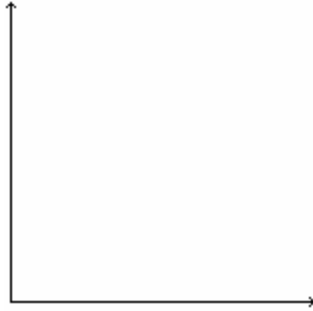
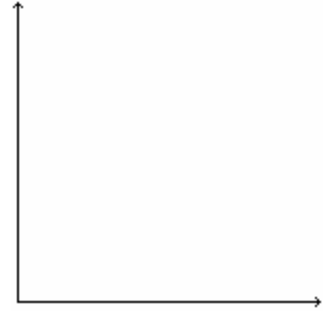


3) Sketch a graph for each of the following descriptions (section 7.3)

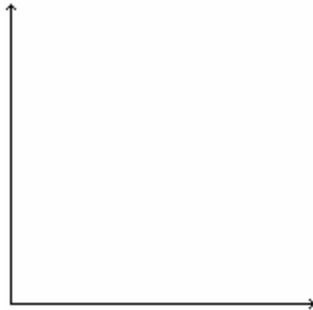
Linear and increasing, then linear and decreasing



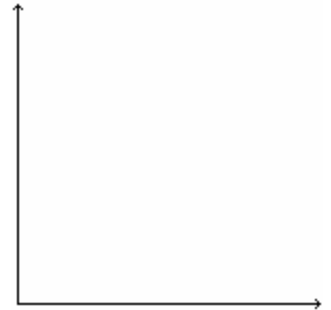
Decreasing with a slower and slower rate of change, then increasing with a faster and faster rate of change



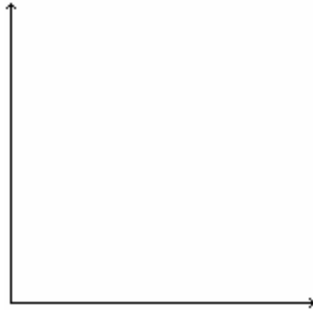
Neither increasing nor decreasing



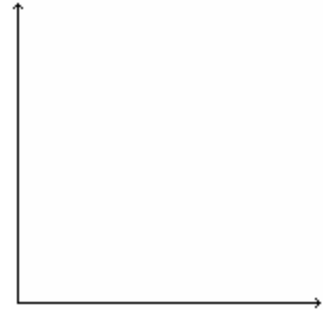
Increasing with a slower and slower rate of change, then increasing with a faster and faster rate of change



Increasing with a slower and slower rate of change

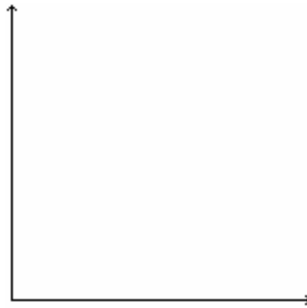


Increasing, linear, and discrete

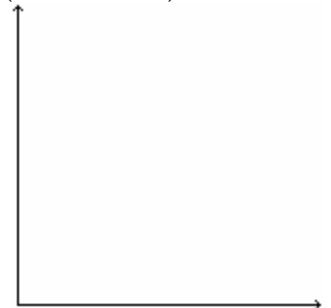


4) For each of the following, state which variable is the dependent and which is the independent. Then make a sketch of what the graph would look like. (section 7.3)

The height of the grass in a yard over the summer

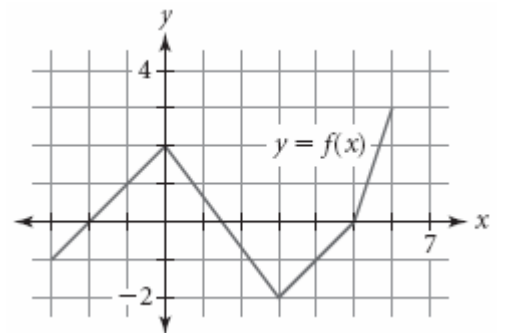


The height of a basketball during a free throw shot



5) Use the graph of $f(x)$ at the right to answer the following (section 7.4)

- What is the value of $f(0)$?
- What is the value of $f(3)$?
- What is the value of $f(-3)$?
- For what x -value or x -values does $f(x)$ equal 0?
- For what x -value or x -values does $f(x)$ equal 3?
- For what x -value or x -values does $f(x)$ equal -3?



6) If $f(4) = 9$, then what point must be on the graph of the function? (section 7.4)

7) Evaluate the following (section 7.4)

$$f(x) = 3x - 1 \qquad g(x) = |x - 5| \qquad h(x) = x^2 - 9$$

a) $f(1) =$

b) $g(1) =$

c) $h(1) =$

d) $f(-3) =$

e) $g(-3) =$

f) $h(-3) =$

g) x , when $f(x) = 16$

h) x , when $g(x) = 16$

i) x , when $h(x) = 16$

8) Evaluate the following (section 7.5)

a) $|-11| + |6|$

b) $|-3|^2$

c) $-3|(-4)(5)|$

d) $\frac{|-24|}{|4|}$

e) $4|-2|^2$

f) $|-11|^{|-2|}$

9) Solve the following (section 7.5)

a) $|x| = 5$

b) $|x - 6| = 5$

c) $|x - 6| > 5$

10) Solve the following (section 7.5)

a) $x^2 = 49$

b) $2x^2 + 3 = 21$

c) $x^2 < 16$