Lesson 2.4.2: Illustrating Linear Functions

Total points = 49

A. Answers

1. Yes ✓, $m=-6$✓, $b=-7$✓, degree = 1 ✓
2. Yes ✓, $m=0$✓, $b=-4$✓, degree = 0 ✓
3. Yes ✓, $m=2$✓, $b=-6$✓, degree = 1 ✓
4. No ✓
5. Yes ✓, $m=0$✓, $b=0$✓, degree = undefined ✓

B. Answers

1. Linear ✓
2. Linear ✓
3. Linear ✓
4. Not linear ✓
5. Linear ✓

C. Solutions

1. If $f(x)=4x-1$, find:

a. $f(0)=4(0)-1\checkmark$, $f(0)=0-1\checkmark$, $f(0)=-1\checkmark$

b. $f(-1)=4(-1)-1\checkmark$, $f(-1)=-4-1\checkmark$, $f(-1)=-5\checkmark$

c. $f(\frac{1}{2})=4(\frac{1}{2})-1\checkmark$, $f(\frac{1}{2})=2-1\checkmark$, $f(\frac{1}{2})=1\checkmark$

2. If $f(x)=-2x+3$, find:

a. $f(1)=-2(1)+3\checkmark$, $f(1)=-2+3\checkmark$, $f(1)=1\checkmark$

b. $f(-2)=-2(-2)+3\checkmark$, $f(-2)=4+3\checkmark$, $f(-2)=7\checkmark$

c. $f(\frac{3}{2})=-2(\frac{3}{2})+3\checkmark$, $f(\frac{3}{2})=-3+3\checkmark$, $f(\frac{3}{2})=0\checkmark$

3. If $f(x)=\frac{3}{2}x+1$, find:

a. $f(2)=(\frac{3}{2})(2)+1\checkmark$, $f(2)=3+1\checkmark$, $f(2)=4\checkmark$

b. $f(-4)=(\frac{3}{2})(-4)+1\checkmark$, $f(-4)=-6+1\checkmark$, $f(-4)=-5\checkmark$

c. $f(\frac{1}{3})=(\frac{3}{2})(\frac{1}{3})+1\checkmark$, $f(\frac{1}{3})=\frac{1}{2}+1\checkmark$, $f(\frac{1}{3})=\frac{3}{2}\checkmark$

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