Linear / Exponential / Neither
- Discrete / continuous
- Domain
- Explicit Funtion $f(x) =$

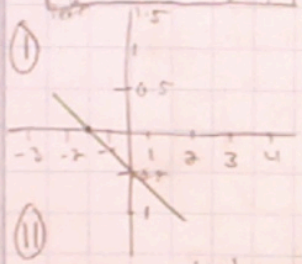
⑮ $f(1) = 7$, $f(2) = 7$, $f(n) = f_{n-1} + f_{n(n-2)}$
Rewrsive
Discrete
$f(3) = 14$
$D: \{x \mid x \in \mathbb{N}\}$
Real

③ $y = 4x$ linear, Discrete, Domain, ~~Natural~~ Real, explicit Funtion $= f(x) = 4x$

② | | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| | 64 | 32 | 16 | 8 | 4 |

Exponential, Discrete, Domain natural, $f(x) = 64 \div 2$

①



linear, Continuous, Domaine Real, $f(x) =$

⑪ $f(x) = \frac{0.5}{1.5} x + 0.5$

⑤ exponetial, continuous, Domain Real, $\{x \mid x \in \mathbb{R}\}$ $f_x = 12^x$
~~exponetial~~ natural, ~~Discret~~ Continuous, Domain Natural, $\{x \mid x \in \mathbb{R}\ x \geq 3\}$

④ linear, continuous, Domain Reals.

exponetial, continuous, Domain Real, $\{x \mid x \in \mathbb{R}\}$ $f_x = 12^x$
~~exponetial~~ natural, ~~Discret~~ Continuous, Domain Natural, $\{x \mid x \in \mathbb{R}\ x \geq 3\}$
linear, continuous, Domain Reals.

Domain in Set notation

Natural numbers. {1, 2, 3, ...}

$D: \{x \mid x \in \mathbb{N}\}$

Domain integers

$D: \{x \mid x \in \mathbb{Z}\}$

Oct 2

7. linear
Continuous
Domain = ℝ
f(x) = .5x

2. exponential
discrete
Domain Rounds = ℕ
f(x) = 64 · 2^(x−1)

3. linear
Discrete
Domain = ℕ
f(x) = 4x

4. linear
Continuous
Domain = ℝ
f(x) = x − x

5. exponetial
Discret
Domain = ℕ
f(x) = 3 · 2^(x−1)

10. linear
Continuous
Domain = ℕ
f(x) = x × 1.75

11. exponetial
Discrete
Domain = ℝ
f(x) = x + 1 (x − 1)

Answers

1. linear
Continuous
ℝ
f(x) = 1/3 x − 1/2

2. exponetial
discrete
ℕ
f(x) = 64 · 1/2^(x−1)

3. linear
Continuous
ℝ
f(x) = 4x

4. linear
Continuous
ℝ

5. Neither - no constant ratio or slope
Continuous
{x | x ∈ ℝ, x ≥ 3}

10. exponetial
continuous
D: {x | x ∈ ℝ}
f(x) = 1 × 2^x

11. Neither

linear f(x) = mx + b
exponetial f(x) = a · b^x

Domain in set Notation

Natural numbers
{1, 2, 3, 4}
D: {x | x ∈ ℕ}
x value in

( )
[ ]
{ }
use these

Domain: integers
D {x | x ∈ ℤ}

15. Neither
Discret
D: {x | x ∈ ℕ}

2.3
10-2-2015

1. $(-\frac{3}{2}, 0)$ $(0, -.5)$

a) linear

b) Continous

c) $\mathbb{R}$

d) $F(x) = \frac{-1}{3}x - .5$

e) None

3. $y = 4x$

a) linear

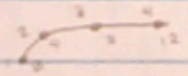
b) continous

c) $\mathbb{R}$

d) $F(x) = 4x$

e) None

*no word problems assume continuous

5. 

a) Neither

b) Continous

c) $\mathbb{R}^{\geq 3}$ $\{x \mid x \in \mathbb{R}^{\geq 3}\}$

d) $F(x) =$

e) None

15. $f(1) = 7$, $f(2) = 7$, $f(n) = f(n-1) + f(n-2)$

a) Neither

b) discrete

c) $\mathbb{N}$ $\{x \mid x \in \mathbb{N}\}$

d) $f(x) =$ No

e) None

2. 64, 32, 16, 8, 4

a) exponential

b) discrete

c) $\mathbb{N}$

d) $F(x) = 64 \cdot \frac{1}{2}^{x-1}$

e) geometric

4. decreasing at a CRC.

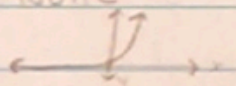
a) linear

b) continous

c) $\mathbb{R}$

d) $f(x) =$ Not posible

e) None

11. 

a) exponential

b) continous

c) $\mathbb{R}$ $\{x \mid x \in \mathbb{R}\}$

d) $f(x) = 1 \times 2^{x}$

e) None

SET NOTATION

Domain set Group

↓ Group

$\mathbb{N}$ $\{x \mid x \in \mathbb{N}\}$ $\{$set$\}$ natural #'s $\{x \mid x \in \mathbb{N}\}$

$\mathbb{Z}$ $\{x \mid x \in \mathbb{Z}\}$

$\mathbb{R}$ $\{x \mid x \in \mathbb{R}\}$ $\mathbb{Q}$ $\{x \mid x \in \mathbb{Q}\}$

Discrete or continuous

Explicit

$f(x) = 2 \cdot 3^{(x-1)}$

Domain = N

Seq = Geometric

n	f(n)
0	-6
1	-12
2	-24
3	-48
4	-96
5	
6	

Neither

October 2, 2015

A) Linear / Exponential / Neither

B) Discrete / Continuous

C) Domain

D) Explicit Function

Linear: $f(x) = mx + b$

Exponential: $f(x) = a \cdot b^{x}$ ← rate

E) Arithmetic / Geometric sequence / or none

Domain Set Notation

Group

$\{a, b, c\}$

$\{1, 2, 3\}$

Domain Natural $\neq$ $\{x \mid x \in \mathbb{N}\}$

Hint: 0

x

Domain Integers $\{x \mid x \in \mathbb{Z}\}$

Domain Reals $\{x \mid x \in \mathbb{R}\}$

IS Neither (not discrete) $D: \{x \mid x \in \mathbb{N}\}$