Brink / HMS.2d / Algebra 2

Solutions

Lesson # 1.1 Homework

1. 0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144.

2. 1. multiply by $\frac{1}{2}$

   2. $\frac{1}{2}, \frac{1}{4}, \frac{1}{8}, \frac{1}{16}, \frac{1}{32}, \frac{1}{64}$

3. ..., −7, 17, −31, 65

   2. 2, −1, +5, −7

4. 1. arithmetic plus 5

      0, 5, 10, 15, 20, 25...

   2. double then add five

      0, 5, 15, 35, 75

Brent / Hudson / Algebra 2

Solutions

Lesson 1.2

1. 2, 4, 8, 16, 32

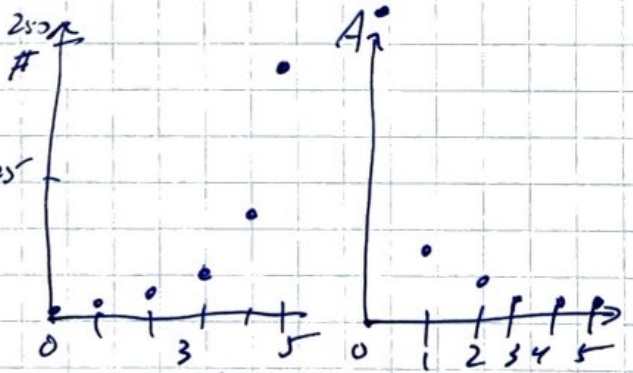
2. 1. $r=1$
   2. $r=\frac{1}{2}$
   3. $r=3$
   4. $r=0.1$
   5. $r=10$

3.

m	total
1	1000
2	1020
3	1040.40
4	1061.208
5	1082.43216
6	1104.08...
7	1126.1624...
8	1148.6856...

4.

step	# Δs	Area
0	1	256
1	3	64
2	9	16
3	27	4
4	81	1
5	243	1/4



3. Both are curved exponentials, but # is increasing, A is decreasing

5. 1. 10, 26, 74, 218, 650
   2. 1, -1, -7, -25, -79
   3. 0, -4, -16, -52, -160

6. 1. arithmetic 1, -1, -3, -5, -7
   2. geometric 1, -1, 1, -1, 1

BECA / Hudson / Algebra 2

Lesson #1.3 Homework

Solutions

1. 1. -2, 4, 10, 16, 22
   2. 11, 111, 211, 311, 411
   3. 5, 7.5, 10, 12.5, 15
   4. 5, -4, -13, -22, -31

2. 1. geometric $r = \frac{1}{5}$
   2. neither
   3. arithmetic $d = 10$
   4. geometric $r = 1/5$
   5. arithmetic

3. 1. -3, -2, -1, 0, +1 $d = 1$
   2. 1, 13, 25, 37, 49 $d = 12$
   3. 1, 0.25, -0.50, -1.25, -2 $d = -0.75$
   4. 92, 89, 86, 83, 80 $d = -3$

4. 1. 1, 10, 19, 28
   2. 1, 10, 100, 1000
   3. 1, 10, 21, 45

5. 1. 1, 5, 25, 125, 625 $r = 5$
   2. -1, +6, -36, 216, -1296 $r = -6$
   3. 4, -12, 36, -108, +324 $r = -3$
   4.
   3. 10, 5, ~~2.5, 1.25, 0.6125~~ 2.5, 1.25, 0.625 $r = \frac{1}{2}$
   5. 8, 12, 18, 27, 40.5 $r = \frac{3}{2}$

Lesson 1.3 (cont)

6. 1) 4 $r=2$

4, 8, 16, 32, 64

2) $r=\frac{1}{2}$

$4, 2, 1, \frac{1}{2}, \frac{1}{4}$

7. 1. 0, −6, −18, −63, −132

2. 3, 0, −6, −18, −63

3. yes if it is sufficiently large

~~100~~ 10, 14, 22, 38, 70