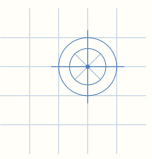


Linear or nonlinear — Linear or exponential



Name: _____

Date: _____

Does each one grow by adding or by multiplying? Circle linear or exponential.

①

x	2	3	4	5
y	16	11	6	1

Linear / Exponential

②

x	2	3	4	5
y	2	4	8	16

Linear / Exponential

③

A candle is 76 cm tall and burns 3 cm each hour.

Linear / Exponential

④

x	2	3	4	5
y	29	38	47	56

Linear / Exponential

⑤

A jar holds 40 coins. 6 more go in each day.

Linear / Exponential

⑥

x	1	2	3	4
y	16	8	4	2

Linear / Exponential

⑦

A pond has 15 lilies. The number triples each week.

Linear / Exponential

⑧

A car worth \$18000 loses 10% of its value each year.

Linear / Exponential



Linear or nonlinear · Linear or exponential — Answer key



1. x: 2, 3, 4, 5 y: 16, 11, 6, 1:
Linear — y goes down by 5 every time, so the same amount is added or taken away each time

2. x: 2, 3, 4, 5 y: 2, 4, 8, 16:
Exponential — y is multiplied by 2 every time, so the amount is multiplied by the same number each time

3. A candle is 76 cm tall and burns 3 cm each hour.:
Linear — the same amount is added or taken away each time

4. x: 2, 3, 4, 5 y: 29, 38, 47, 56:
Linear — y goes up by 9 every time, so the same amount is added or taken away each time

5. A jar holds 40 coins. 6 more go in each day.:
Linear — the same amount is added or taken away each time

6. x: 1, 2, 3, 4 y: 16, 8, 4, 2:
Exponential — y is divided by 2 every time, so the amount is multiplied by the same number each time

7. A pond has 15 lilies. The number triples each week.:
Exponential — the amount is multiplied by the same number each time

8. A car worth \$18000 loses 10% of its value each year.:
Exponential — 10% is taken of the amount at that moment, so the amount is multiplied by the same number each time