Algebra 1-9: Finding Formulas Using Tables

Example Problems

1. Which formula describes the numbers in the table?

x	1	4	9	16
y	1	2	3	4

a) $y = x + 2$ b) $y = 2x$ c) $y = \sqrt{x}$ d. $y = x^2$

For numbers 2-4, match each table with its formula.

a) $y = x + 5$ b) $y = 5x$ c) $y = 5^x$

2. b

x	1	2	3	4
y	5	10	15	20

3. c

x	1	2	3	4
y	5	25	125	625

4. a

x	1	2	3	4
y	6	7	8	9

5. Take out one full sheet of paper. This one sheet of paper has a thickness of 1.

   a) Fold it in half and record the thickness of the folded paper.

   b) Fold it in half again and record the thickness of the folded paper.

   c) Continue to fold and record data.

n = # of folds	1	2	3	4
t = thickness of folded paper	2	4	8	16

   d) Find a formula for t in terms of n. $t = 2^n$

   e) How thick would the folded paper be if you could do 9 folds? $t = 2^9 = 512$

$n = 9$