3) The figures below show a pattern of dark tiles and white tiles that can be described by a relation of two variables.

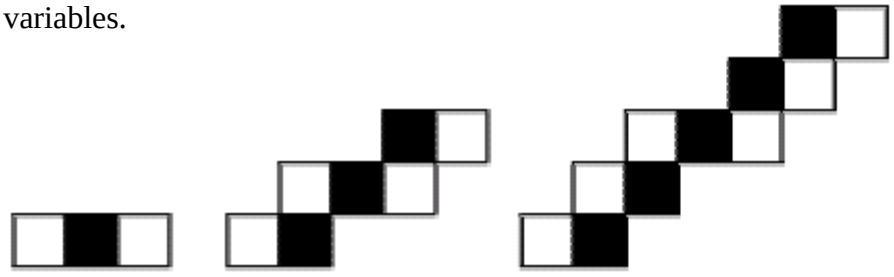


Figure 1 Figure 2 Figure 3

Which equation relates *w*, the number of white tiles, to *d*, the number of dark tiles?

A $d = \frac{3}{4}w - \frac{1}{2}$
B $d = w^2 - 3$
C $w = 2d - 2$
D $w = d + 1$

Responses.

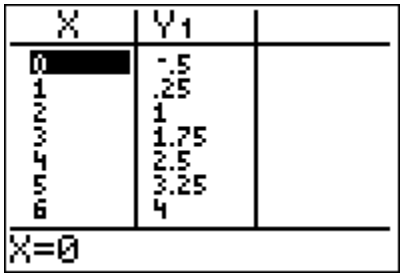
A $d = \frac{3}{4}w - \frac{1}{2}$ Incorrect, the calculator ought to match the right table below.

Right table because *w* is the independent variable here.

Dark Tiles	White Tiles
1	2
3	4
5	6

White Tiles	Dark Tiles
2	1
4	3
6	5

There are two possible tables. Both are correct.

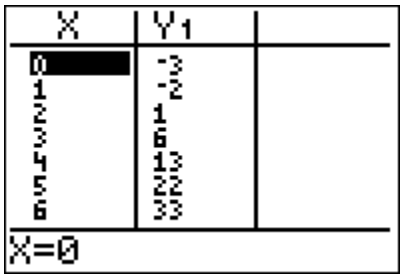


B $d = w^2 - 3$ Incorrect, the calculator ought to match the right table below.
Right table because *w* is the independent variable here.

Dark Tiles	White Tiles
1	2
3	4
5	6

White Tiles	Dark Tiles
2	1
4	3
6	5

There are two possible tables. Both are correct.

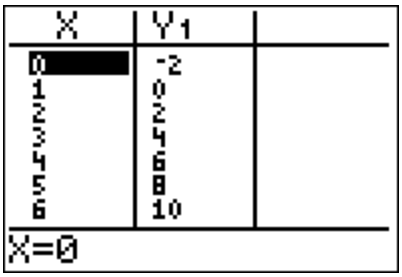


C $w = 2d - 2$ Incorrect, the calculator ought to match the left table below
Left table because d is the independent variable here.

Dark Tiles	White Tiles
1	2
3	4
5	6

White Tiles	Dark Tiles
2	1
4	3
6	5

There are two possible tables. Both are correct.



D $w = d + 1$ Correct!
The table matches the left table below. It is the left table because d is the independent variable in this equation.

Dark Tiles	White Tiles
1	2
3	4
5	6

White Tiles	Dark Tiles
2	1
4	3
6	5

There are two possible tables. Both are correct.