

MUST SHOW STEPS WHENEVER APPROPRIATE

Write a formula for the following.

1) Determine the number of minutes y in x days.2) Convert x ounces to y pounds.

Evaluate the formula at the given value of the variable.

3) $k = |2r + 3|$, $r = -6$

4) $k = 3r^2 - \frac{1}{4}$, $r = 5$

Select the formula that best models the data in the table.

5)

x	-7	-6	-5	-4	-3
y	-4	-3	-2	-1	0

A) $y = 2x + 1$

B) $y = x - 2$

C) $y = x + 3$

D) $y = 2x$

6)

x	4	16	36	64	100
y	1	2	3	4	5

A) $y = 4x^2$

B) $y = \frac{1}{2}\sqrt{x}$

C) $y = 2x^2$

D) $y = \frac{1}{4}\sqrt{x}$

Find a value for a so that the equation models the data.

7) $y = x - a$

x	2	3	4	5	6
y	-2	-1	0	1	2

8) $y = a\sqrt{x}$

x	36	49	64	81	100
y	6	7	8	9	10

Complete the table using the formula.

9) $y = (-2x)^3$

x	3	4	5	6	7
y					

10) $y = \sqrt{x - 3}$

x	3	4	7	12	19
y					

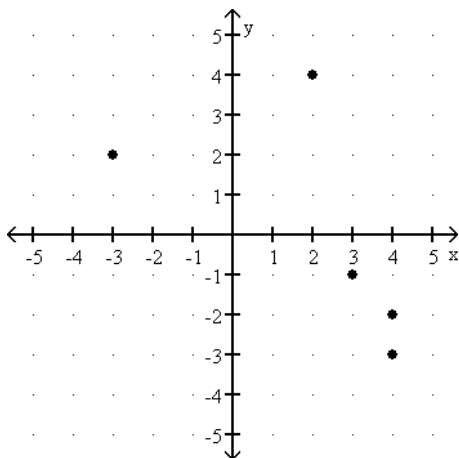
Solve.

11) For a certain species of bird, it's weight W in kilograms is related to it's length L in meters of its wing span, as given by the formula $W = 1.4L^2$. If a bird has a wing span of 6 meter, estimate it's weight.

12) Find the length of a side s of a cube with a volume of 216 cubic inches.

Express the relation S as a set of ordered pairs.

13)



14)

x	-3	-2	-1	0	1
y	-1	1	0	1	1

Identify the domain and range of the relation.

15) $\{(4, -1), (12, -8), (10, 2), (10, -2)\}$

Plot the points in the table in the xy -plane.

16)

x	1	-5	-3	4
y	3	-3	3	-2

Evaluate the formula for $x = -2, -1, 0, 1,$ and 2 . Plot the resulting ordered pairs.

17) $y = -2x + 2$

Predict the number of tick marks on the positive x - axis and the positive y -axis.

18) $[-24, 24, 3]$ by $[-30, 30, 3]$

Make a scatterplot of the relation after determining an appropriate viewing rectangle.

19) $\{(-1, -2), (-2, 2), (3, -1), (2, 2)\}$

Make a line graph of the data given in the table.

20) Sales of videos y in millions during year x

x	1975	1980	1985	1990
y	30	80	80	100