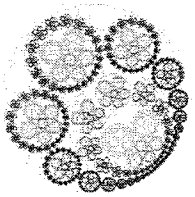
Name: Sequences | 3.2

Ready, Set, Go!



Ready

Topic: Finding values for a pattern

1. Bob Cooper was born in 1900. By 1930 he had 3 sons, all with the Cooper last name. By 1960 each of Bob's 3 boys had exactly 3 sons of their own. By the end of each 30 year time period, the pattern of each Cooper boy having exactly 3 sons of their own continued. How many Cooper sons were born in the 30 year period between 1960 and 1990?

2. Create a diagram that would show this pattern.

3. Predict how many Cooper sons will be born between 1990 and 2020, if the pattern continues.

4. Try to write an equation that would help you predict the number of Cooper sons that would be born between 2020 and 2050. If you can't find the equation, explain it in words.

Set

Topic: Evaluating Equations

Evaluate the following equations when x = { 1, 2, 3, 4, 5 }. Organize your inputs and outputs into a table of values for each equation. Let x be the input and y be the output.

5. $y = 4^x$

x	y
1	
2	
3	
4	
5	

6. $y = (-3)^x$

x	y
1	
2	
3	
4	
5	

7. $y = -3^x$

x	y
1	
2	
3	
4	
5	

8. $y = 10^x$

x	y
1	
2	
3	
4	
5	

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Go

Topic: Solve equations

Solve the following equations for the unknown variable. Check your answer.

9. $3(x-1)=2(x+3)$

10. $7(x+20)=x+5$

11. $9(n-2)=3n+3$

12. $2\left(a-\frac{1}{3}\right)=\frac{2}{5}(a+\frac{2}{3})$

13. $3(t+3)-2(t-1)=0$

14. $6(z+3)-5(3z+2)=2(2z-9)$

Need help? Check out these related videos.

Evaluating with exponents
http://www.khanacademy.org/math/algebra/exponents-radicals/v/level-1-exponents

Solving equations
http://www.khanacademy.org/math/algebra/solving-linear-equations/v/solving-equations-with-the-distributive-property