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| --- | --- |
| 1. Solve: $2x+3x+7= -41$
 | 1. Solve: $2\left(m+1\right)=16$
 |
| 1. Solve: $\frac{1}{3}x=\frac{1}{2}$
 | 1. Solve: $4x+3=2x-5$
 |
| 1. Write and solve an equation for the following:

A hawk can fly at 30 miles/hour. How far will the hawk travel in 20 minutes? | 1. Solve: $\frac{x}{4}=\frac{7}{8}$
 |
| 1. Find the next three terms of the sequence and write an explicit formula:

4, 12, 36, 108, … | 1. Write a rule for the sequence:

2, 20, 200, 2000, … |
| 1. Find the 3rd term in the sequence:

$$A\left(n\right)=3\left(4\right)^{n-1}$$ | 1. Find the next three terms of the sequence and write an explicit formula.

100, 95, 90, 85, … |
| 1. Write a rule for the sequence:

17, 22, 27, 32, … | 1. Find the 4th term in the sequence:

$$A\left(n\right)=-12+4(n-1)$$ |
| 1. Using the formula, $y=a\left(1+r\right)^{n}$

Find the value of a $10,000 invested at 4% for 10 years. | 1. Using the function, $P(t)=a\left(1+r\right)^{t}$,

Calculate the population of Apex, NC in ten years if their current population is 150,000 people and the town grows at a rate of 3% each year. |
| 1. Using the function, $P(t)=a\left(1+r\right)^{t}$,

Calculate the population of Beaufort, NC in ten years if their current population is 110,000 people and the town decreases at a rate of 2% each year. | 1. Sam is saving $20 each week from his job. He has $300 in savings right now. Write an equation to model how much money he will have in “x” weeks.
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| 1. Find the slope of a line that passes through points (1,4) and (2,10).
 | 1. Write the equation of a line that passes through point (0,4) with a slope of -4.
 |
| 1. Write the equation of a line that passes through points (1,5) and (3,15).
 | 1. Find the equation of a line from the following table. What is the y-intercept? What is the slope?

|  |  |
| --- | --- |
| x | y |
| 0 | 12 |
| 1 | 9 |
| 2 | 6 |
| 3 | 3 |

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| 1. Graph the line: $y=2x-1$

 | 1. Graph the equation: $y=3^{x}$
 |
| 1.
 |
| 1. Is the relation a function?

 | 1. Is the relation a function?

 |
| 1. State the domain, range, x-intercept, y-intercept, intervals where the function is increasing and decreasing.

  | 1. Use the graph to answer the following questions:
2. What is f(-4)?
3. What is f(6)?
4. What is g(-2)?
5. What is g(0)?
6. f(-4)+g(0)=?
7. f(6) – g(-2)=?
8. Where is g(x)>f(x)
 |
| 1. $f\left(x\right)=4x-5, find f(2)$
 | 1. $g\left(x\right)=-3x+5, find x when g\left(x\right)=14$
 |
| 1. The distance a sloth can travel is a function of time. If sloths move at a constant rate of 6 feet/minute, how many minutes would it take a sloth to travel 20 feet? Write and solve an equation.
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