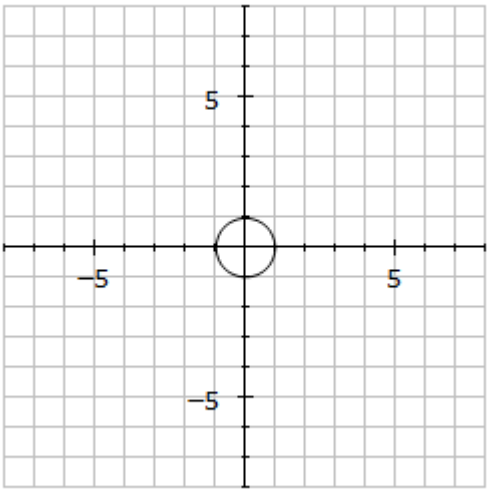
Extension Patterns and Graphs Practice #2

1. a) Write the equation, in terms of n, for the pattern: 17, 15, 13, 11, …:

   b) Write the equation, in terms of n, for the pattern: 0.3, 0.5, 0.7, 0.9, …:

2. a) Write the first 5 terms for the formula $t_n = 4n - 3$:

   b) Write the first 5 terms for the formula $t_n = \frac{n+8}{2}$:



3. On the grid:

   a) Draw the graph of $y = (x - 1)(x - 5)$

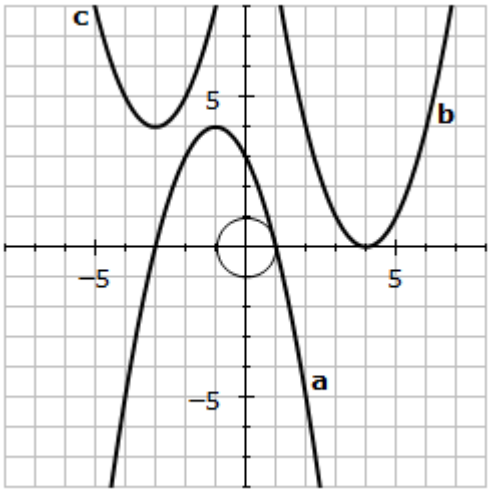
   b) Draw the graph of $y = -(x + 3)^2$

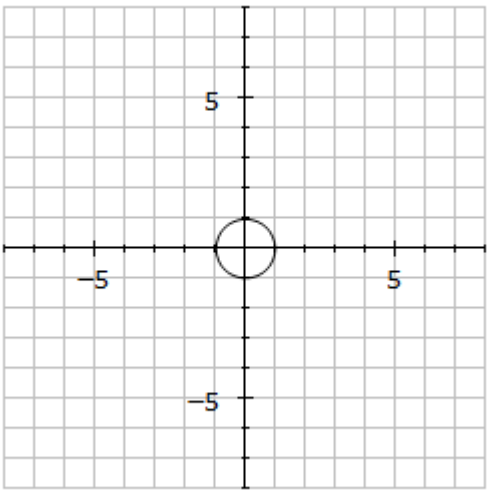
4. Write the equations for the graphs shown:

   a) ……

   b) ……

   c) ……





5. On the grid:

   a) Draw the graph of $x + 2y = 4$

   b) Draw the graph of $x + y = ^-4$

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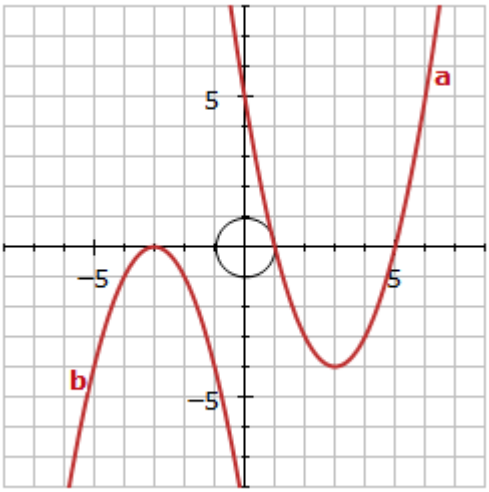
Answers: Extension Patterns and Graphs Practice #2

1. a) Write the equation, in terms of n, for the pattern: 17, 15, 13, 11, …: t_n = **$^{-}2n + 19$**

   b) Write the equation, in terms of n, for the pattern: 0.3, 0.5, 0.7, 0.9, …: t_n = **$0.2n + 0.1$**

2. a) Write the first 5 terms for the formula t_n = = $4n - 3$: **1, 5, 9, 13, 17**

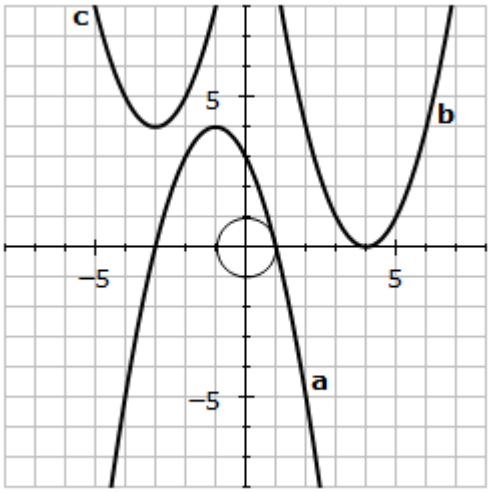
   b) Write the first 5 terms for the formula $t_n = \frac{n+8}{2}$: **4.5, 5, 5.5, 6, 6.5**



3. On the grid:

   a) Draw the graph of $y = (x - 1)(x - 5)$

   b) Draw the graph of $y = -(x + 3)^2$

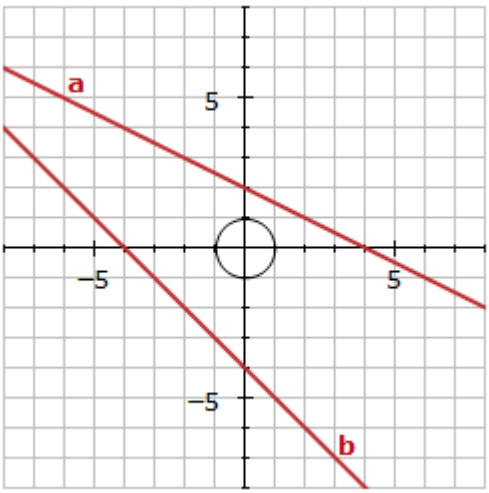


4. Write the equations for the graphs shown:

   a) **$y = -(x - 1)(x + 3)$ or $y = -(x + 1)^2 + 4$**

   b) **$y = (x - 4)^2$** or $(x - 4)(x - 4)$

   c) **$y = (x + 3)^2 + 4$**



5. On the grid:

   a) Draw the graph of $x + 2y = 4$

   b) Draw the graph of $x + y = {}^{-}4$

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