

**EXAMEN CORRESPONDIENTE AL SEGUNDO TRIMESTRE  
CICLO ESCOLAR 2021-2022  
MATEMÁTICAS III**

**LEE CON ATENCIÓN CADA UNO DE LOS PUNTOS Y DA SOLUCIÓN A LOS MISMOS**

**I. Escribe en lenguaje algebraico los siguientes enunciados (usa la letra  $x$ ):**

1. Un número cualquiera: \_\_\_\_\_
2. Un número cualquiera aumentado en siete: \_\_\_\_\_
3. El doble de un número excedido en cinco: \_\_\_\_\_
4. Tres números naturales consecutivos: \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_
5. El producto de dos números naturales consecutivos: \_\_\_\_\_

## II. Resuelve las siguientes ecuaciones cuadráticas:

|                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                 |                                                                                                                                                                                                                 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a) Por factorización:<br>$x^2 - x - 6 = 0$                                                                                                                                                                                                             | b) Por operaciones inversas:<br><br>$x^2 - 361 = 0$                                                                                                                                                             | c) Por fórmula general<br>$8x - 65 = -x^2$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                 |                                                                                                                                                                                                                 |
| $(x - \underline{\hspace{1cm}})(x + \underline{\hspace{1cm}}) = 0$<br>$x_1 - \underline{\hspace{1cm}} = 0 \quad \Bigg  \quad x_2 + \underline{\hspace{1cm}} = 0$<br>$x_1 = \underline{\hspace{1cm}} \quad \Bigg  \quad x_2 = \underline{\hspace{1cm}}$ | $x^2 = \underline{\hspace{1cm}}$<br>$x = \sqrt{\underline{\hspace{1cm}}}$<br>$x = \pm \underline{\hspace{1cm}}$                                                                                                 | $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$ <p>Ordena la ecuación:</p> $x^2 + 8x - 65 = 0$ <p>Valores:</p> $a = \underline{\hspace{1cm}}$ $b = \underline{\hspace{1cm}}$ $c = \underline{\hspace{1cm}}$ $x = \frac{-\underline{\hspace{1cm}} \pm \sqrt{\underline{\hspace{1cm}}^2 - 4(\underline{\hspace{1cm}})(\underline{\hspace{1cm}})}}{2(\underline{\hspace{1cm}})}$ $x = \frac{-\underline{\hspace{1cm}} \pm \sqrt{\underline{\hspace{1cm}} + \underline{\hspace{1cm}}}}{\underline{\hspace{1cm}}}$ $x = \frac{\underline{\hspace{1cm}} \pm \sqrt{\underline{\hspace{1cm}}}}{\underline{\hspace{1cm}}}$ $x = \frac{\underline{\hspace{1cm}} \pm (\underline{\hspace{1cm}})}{\underline{\hspace{1cm}}}$ <table><tr><td style="width: 50%; text-align: center;"><math>x_1</math><br/><math>= \frac{\underline{\hspace{1cm}} + \underline{\hspace{1cm}}}{\underline{\hspace{1cm}}}</math><br/><br/><math>x_1 = \underline{\hspace{1cm}}</math><br/><math>\underline{\hspace{1cm}}</math><br/><br/><math>x_1 = \underline{\hspace{1cm}}</math></td><td style="width: 50%; text-align: center;"><math>x_2</math><br/><math>= \frac{\underline{\hspace{1cm}} - \underline{\hspace{1cm}}}{\underline{\hspace{1cm}}}</math><br/><br/><math>x_2 = \underline{\hspace{1cm}}</math><br/><math>\underline{\hspace{1cm}}</math><br/><br/><math>x_2 = \underline{\hspace{1cm}}</math></td></tr></table> | $x_1$<br>$= \frac{\underline{\hspace{1cm}} + \underline{\hspace{1cm}}}{\underline{\hspace{1cm}}}$<br><br>$x_1 = \underline{\hspace{1cm}}$<br>$\underline{\hspace{1cm}}$<br><br>$x_1 = \underline{\hspace{1cm}}$ | $x_2$<br>$= \frac{\underline{\hspace{1cm}} - \underline{\hspace{1cm}}}{\underline{\hspace{1cm}}}$<br><br>$x_2 = \underline{\hspace{1cm}}$<br>$\underline{\hspace{1cm}}$<br><br>$x_2 = \underline{\hspace{1cm}}$ |
| $x_1$<br>$= \frac{\underline{\hspace{1cm}} + \underline{\hspace{1cm}}}{\underline{\hspace{1cm}}}$<br><br>$x_1 = \underline{\hspace{1cm}}$<br>$\underline{\hspace{1cm}}$<br><br>$x_1 = \underline{\hspace{1cm}}$                                        | $x_2$<br>$= \frac{\underline{\hspace{1cm}} - \underline{\hspace{1cm}}}{\underline{\hspace{1cm}}}$<br><br>$x_2 = \underline{\hspace{1cm}}$<br>$\underline{\hspace{1cm}}$<br><br>$x_2 = \underline{\hspace{1cm}}$ |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                 |                                                                                                                                                                                                                 |



V. Relaciona las siguientes funciones con su gráfica respectiva:

(   )  $y = 5x + 3$

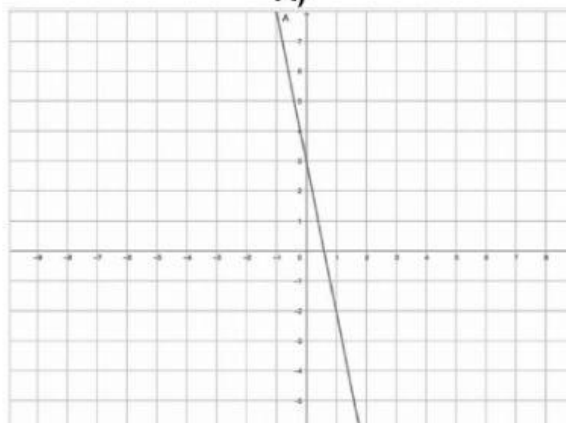
(   )  $y = x$

(   )  $y = x^2$

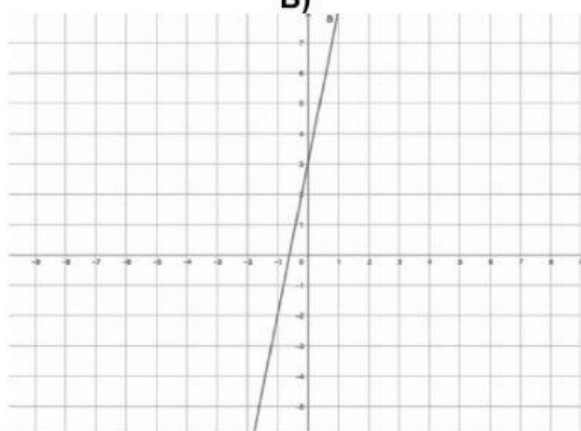
(   )  $y = -5x + 3$

(   )  $y = x^2 + 3$

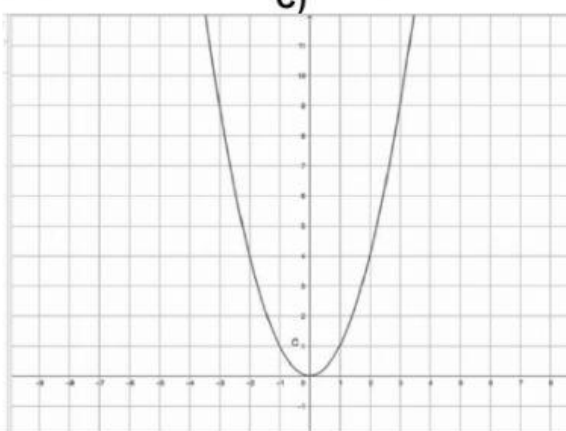
A)



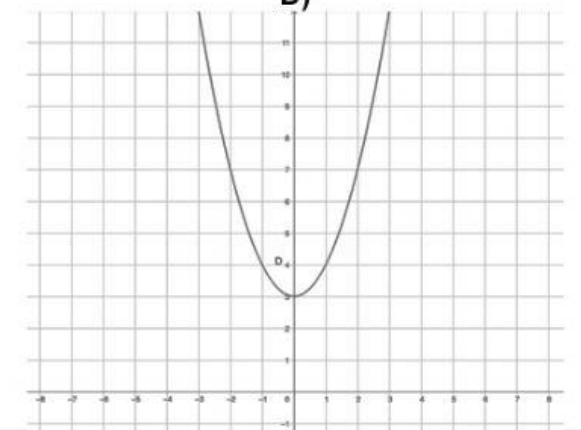
B)



C)



D)



E)

