

EJERCICIOS

1. Relaciona cada función con su respectivo dominio de definición:

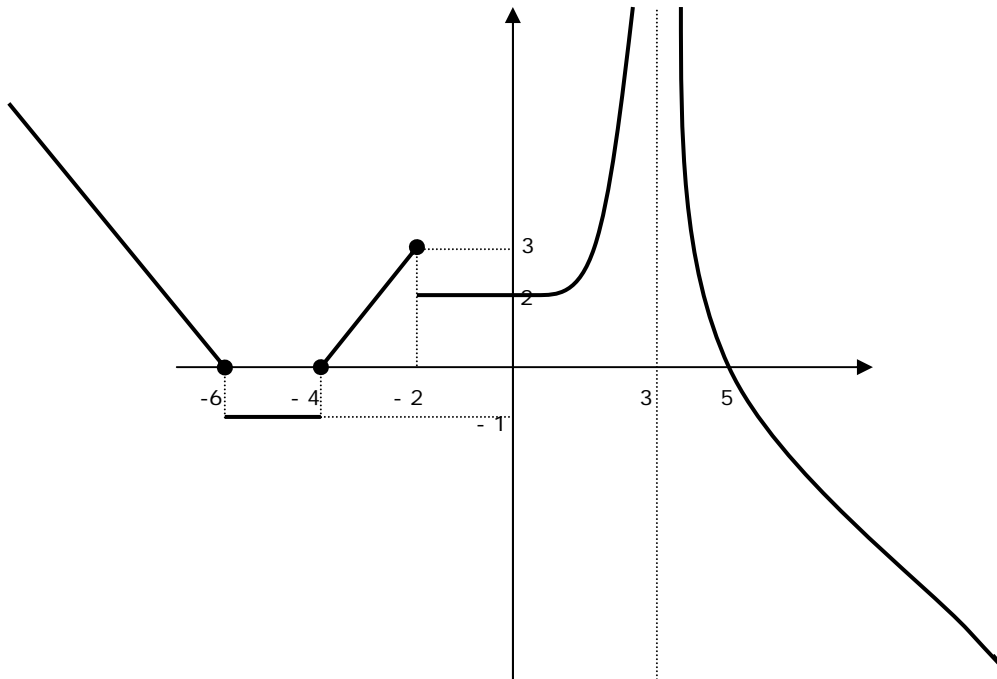
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|-------------------------------|---|
| 1) $y = \frac{1}{x^2 + 1}$ | 1. \mathbb{R} |
| 2) $y = \frac{2+x}{x^2}$ | 2. $\mathbb{R} - \{-2\}$ |
| 3) $y = \sqrt{x-2}$ | 3. $\mathbb{R} - \{3\}$ |
| 4) $y = \frac{1}{3x - x^2}$ | 4. $[-1, +\infty)$ |
| 5) $y = \frac{2x}{(x-3)^2}$ | 5. $[-3, +\infty)$ |
| 6) $y = \frac{1}{\sqrt{x-2}}$ | 6. $\mathbb{R} - \{-3, +3\}$ |
| 7) $y = \sqrt{x^2 - 1}$ | 7. $\mathbb{R} - \{0, 3\}$ |
| 8) $y = \frac{1}{x^2 - 9}$ | 8. \mathbb{R} |
| 9) $y = \sqrt{3x-1}$ | 9. $[2, +\infty)$ |
| 10) $y = \frac{1}{x+2}$ | 10. $\left[\frac{1}{3}, +\infty\right)$ |
| 11) $y = \sqrt{x+1}$ | 11. $(2, +\infty)$ |
| 12) $y = \sqrt{x+3}$ | 12. $\mathbb{R} - \{0\}$ |

2. Relaciona cada dominio de definición con su respectiva función:

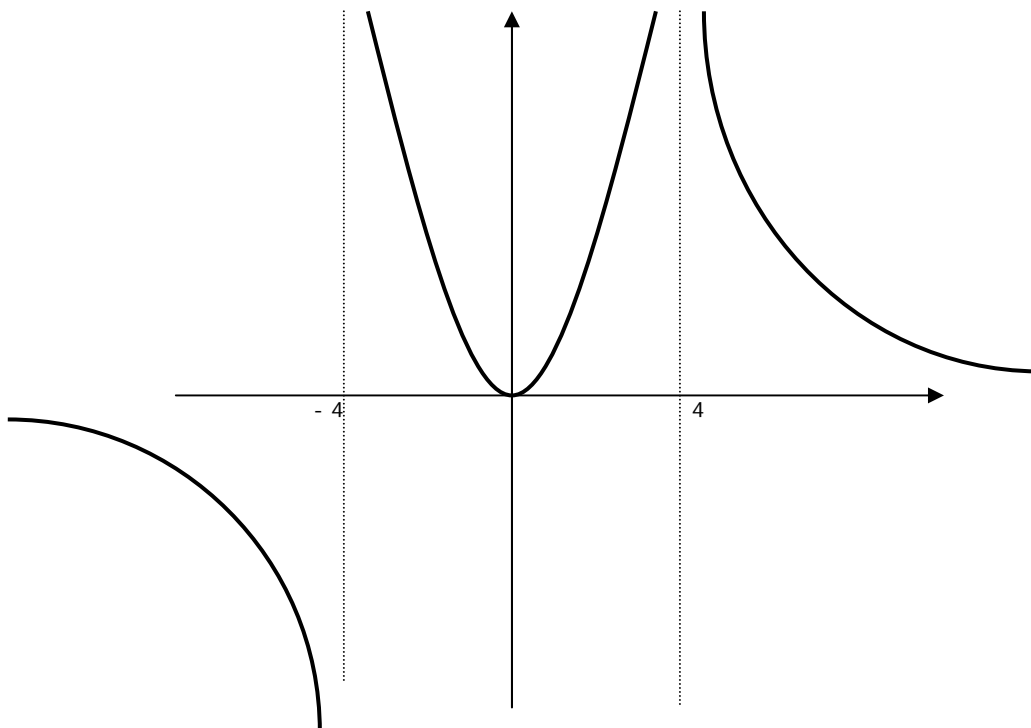
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|--|---|
| 1) $(2, +\infty)$ | 1. $y = \frac{\sqrt{x^2 - x - 2}}{x + 9}$ |
| 2) $R - \{-7\}$ | 2. $y = \frac{3\sqrt{x}}{x - 8}$ |
| 3) $(-\infty, -1) \cup (-1, +\infty)$ | 3. $y = \frac{1}{\sqrt{x - 2}}$ |
| 4) $R - \{-2, 2\}$ | 4. $y = \frac{1}{x^2 - 16}$ |
| 5) $(-\infty, 0) \cup (0, +\infty)$ | 5. $y = \sqrt{3x - 4}$ |
| 6) $[0, 8) \cup (8, +\infty)$ | 6. $y = 3^{\frac{1}{x}}$ |
| 7) $(0, +\infty)$ | 7. $y = \frac{3}{x + 7}$ |
| 8) $(-\infty, -9) \cup (-9, -1] \cup [2, +\infty)$ | 8. $y = \sqrt{2x^2 + 4}$ |
| 9) $\left[\frac{4}{3}, +\infty\right)$ | 9. $y = \log(x + 3)$ |
| 10) $(-3, +\infty)$ | 10. $y = \frac{2x}{\log_2 x}$ |
| 11) $[5, +\infty)$ | 11. $y = \sqrt{x} + \sqrt{x - 5}$ |
| 12) R | 12. $y = \frac{2x - 4}{x + 1}$ |

3. Analiza las siguientes funciones:

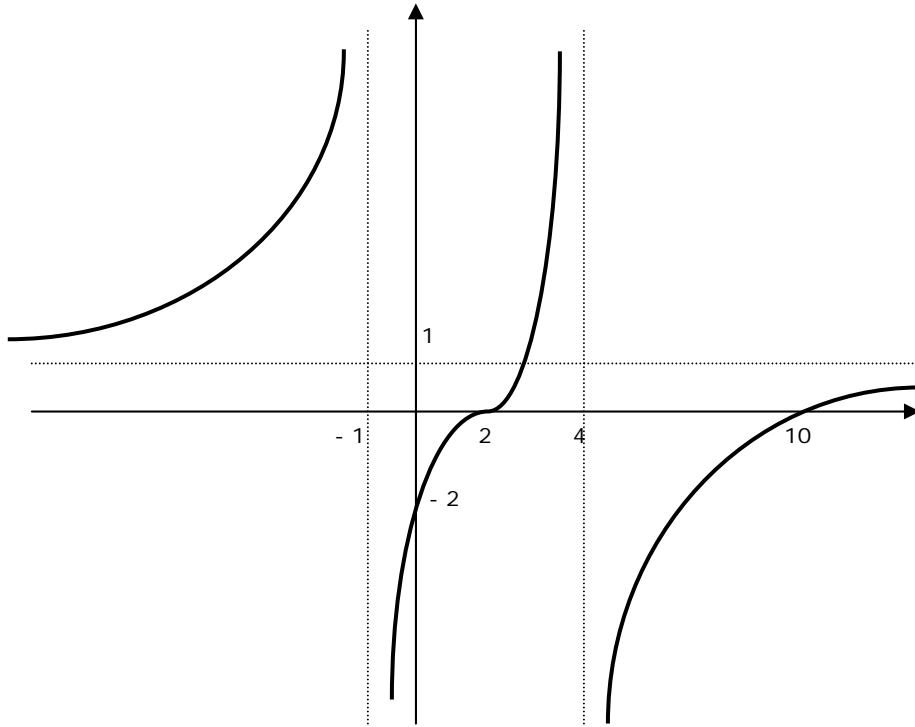
a)



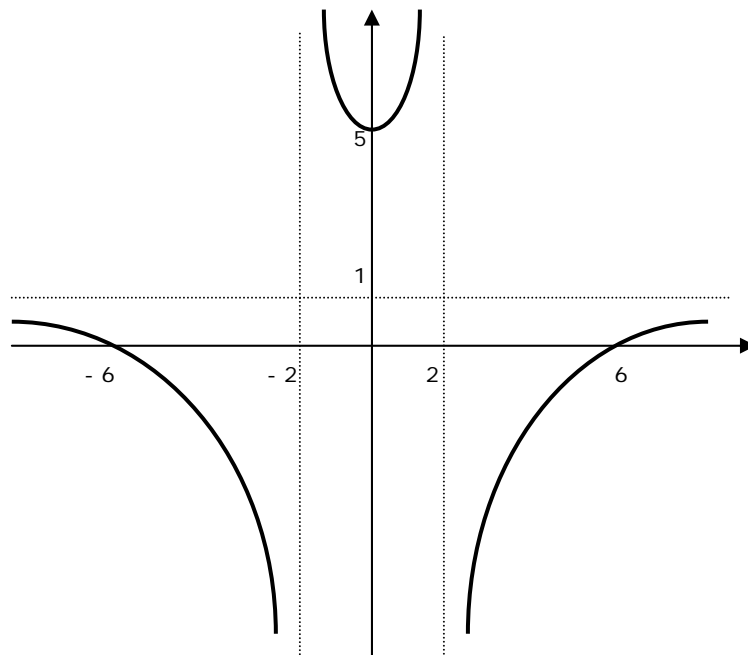
b)



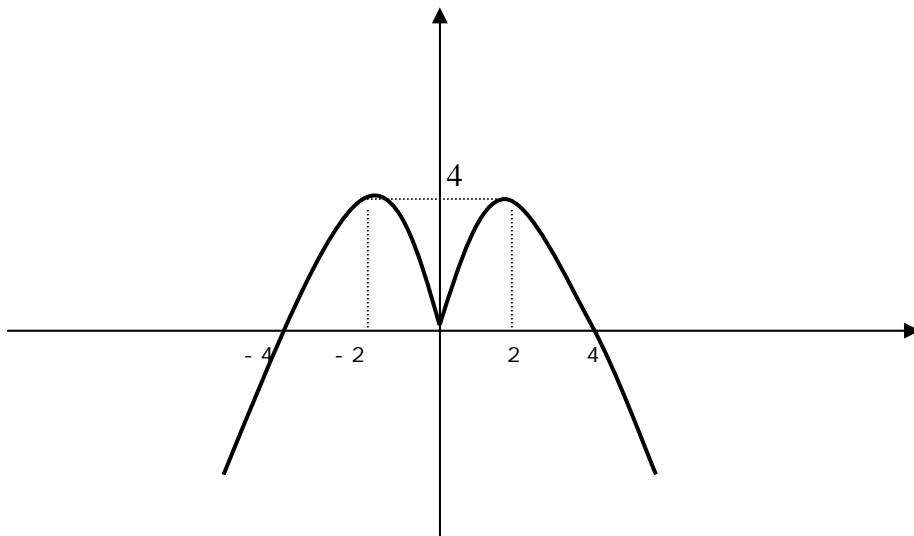
c)



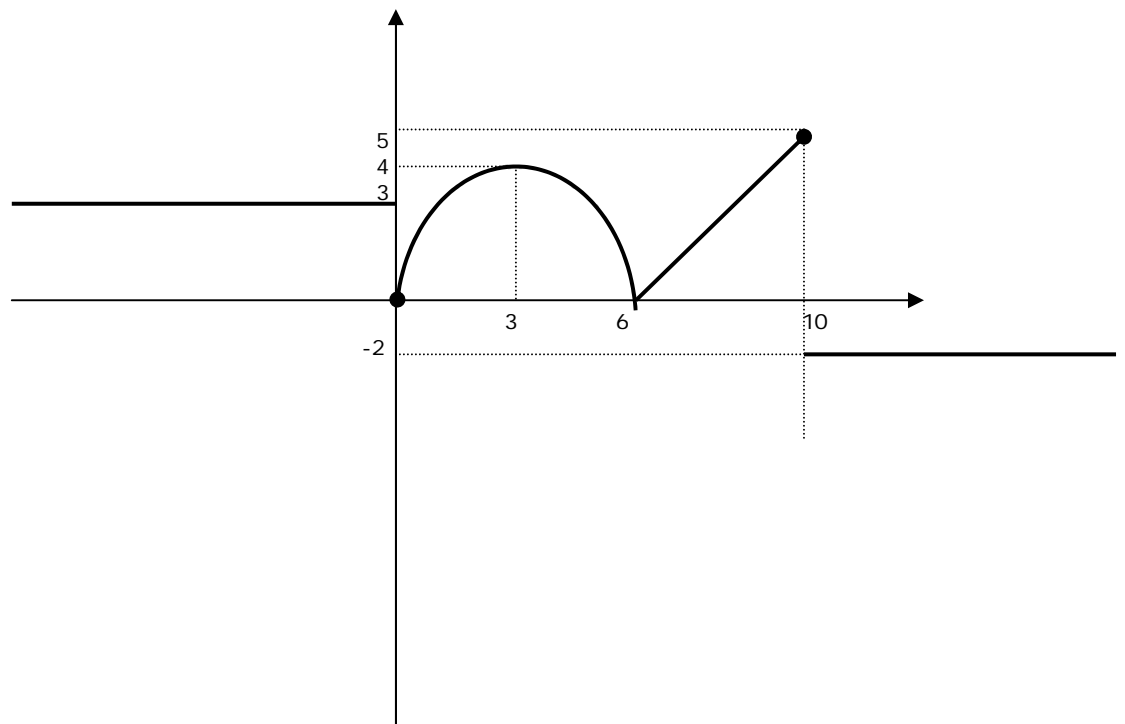
d)



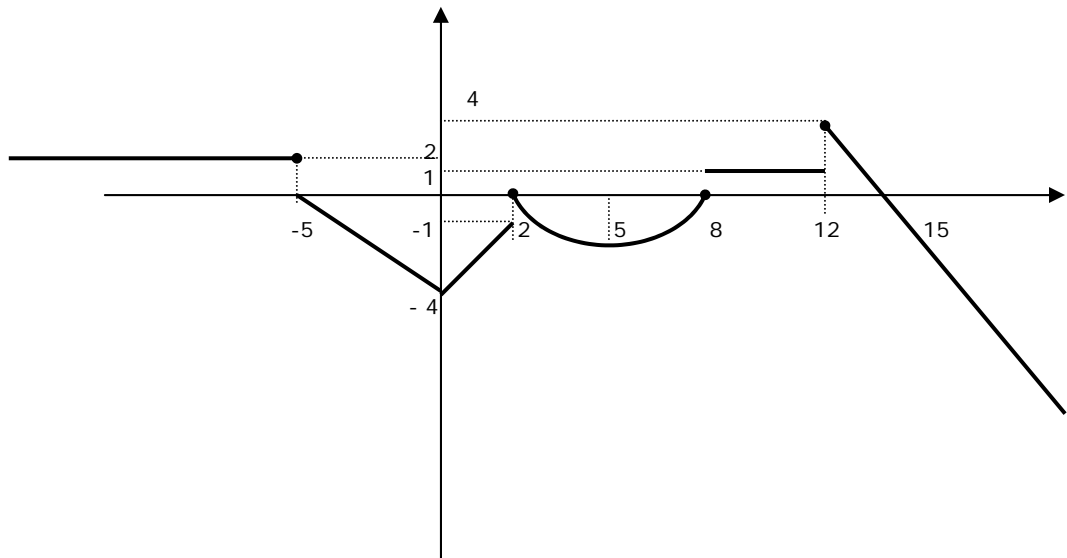
e)



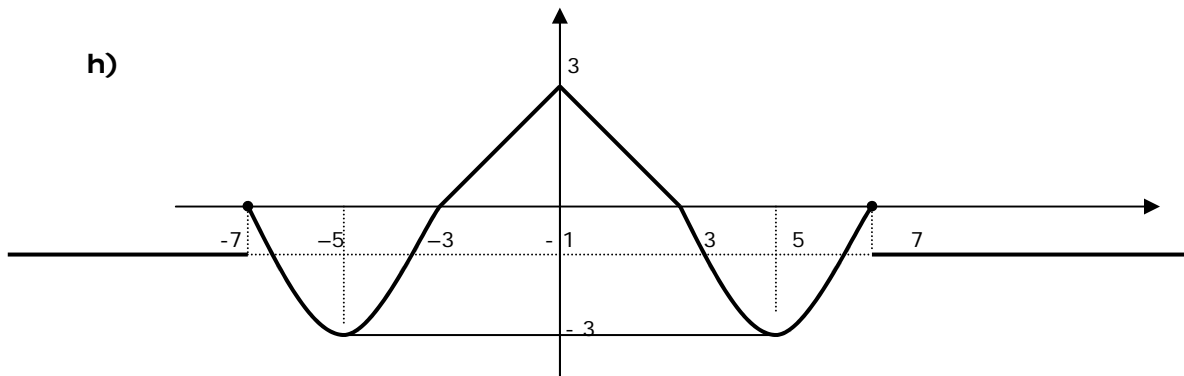
f)



g)



h)



i)

