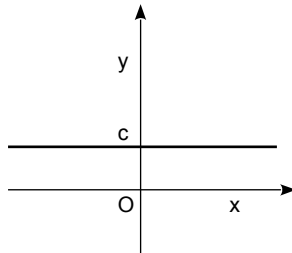
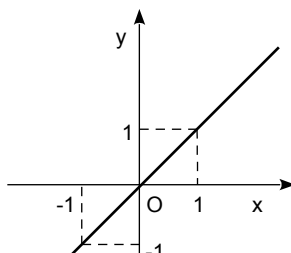
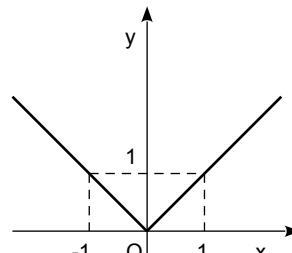
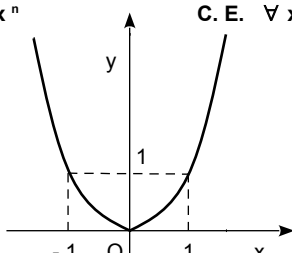
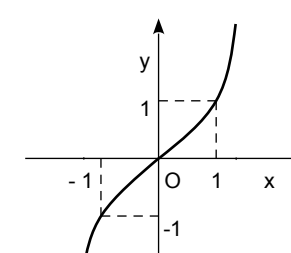
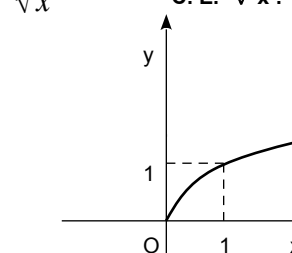
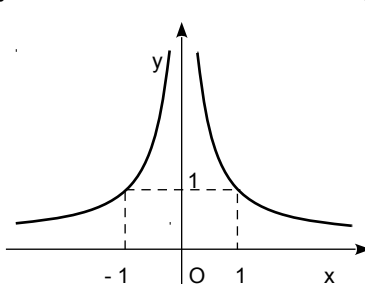
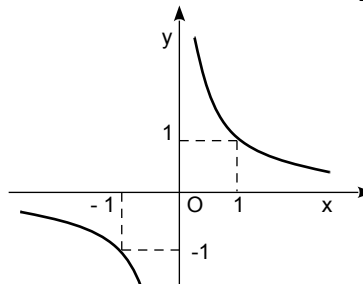
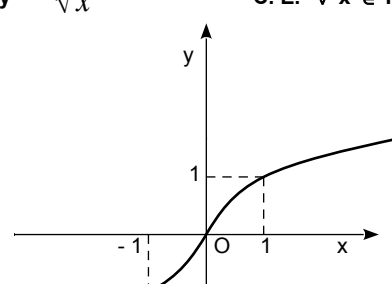
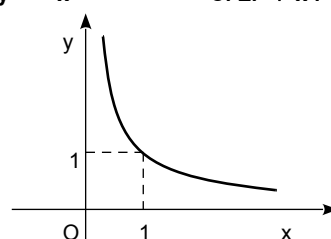
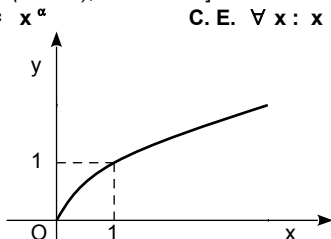
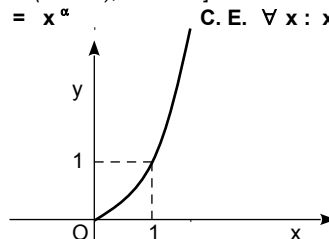
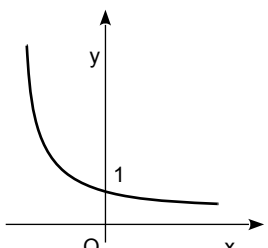
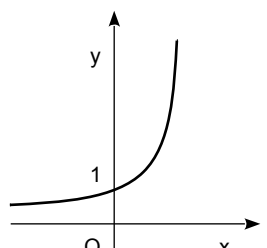
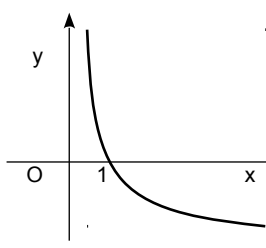
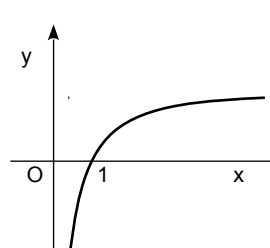
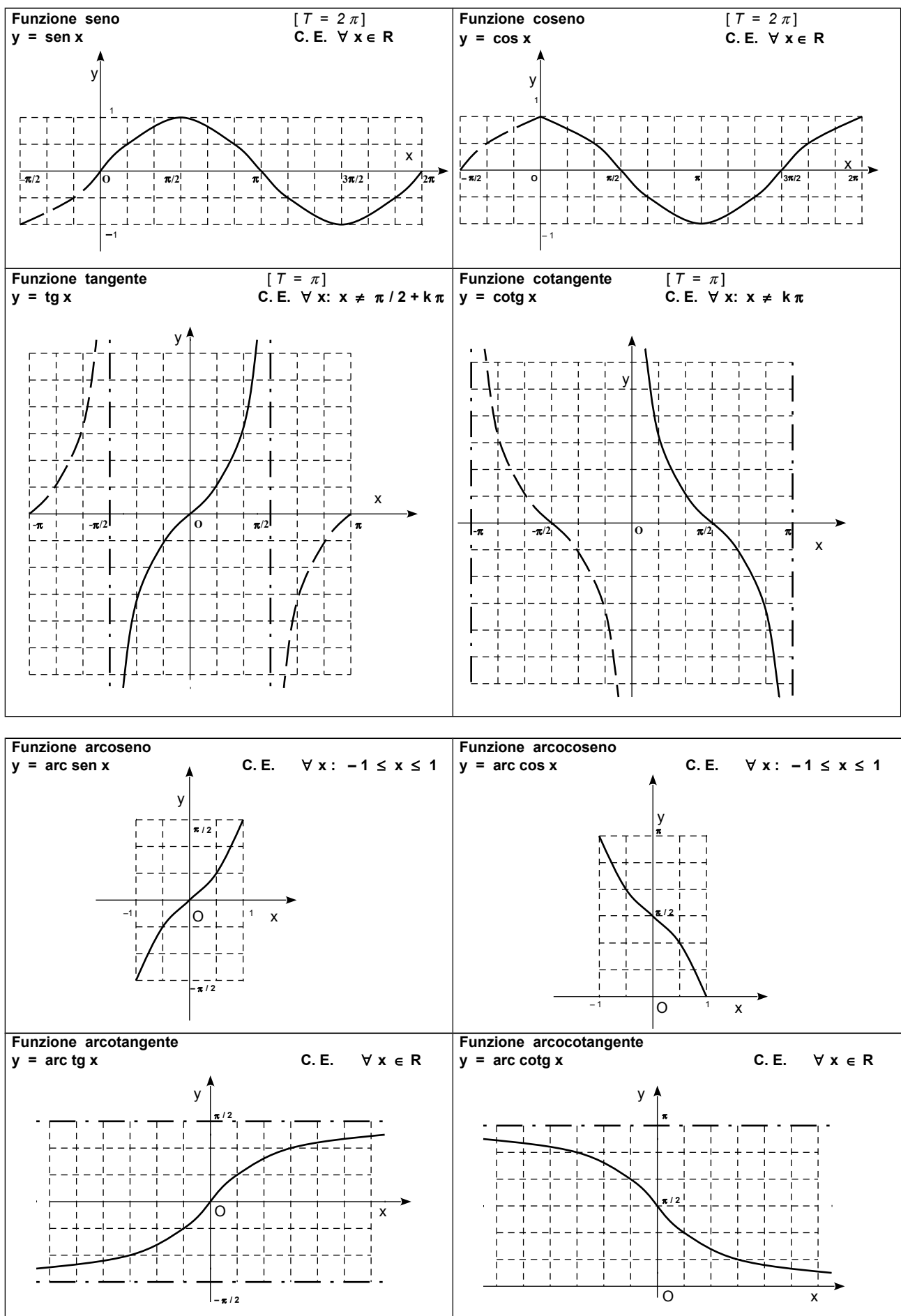
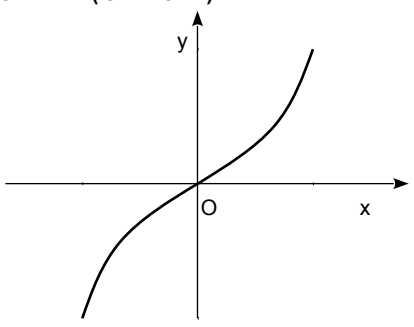
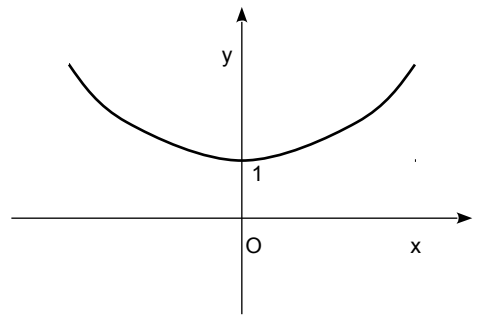
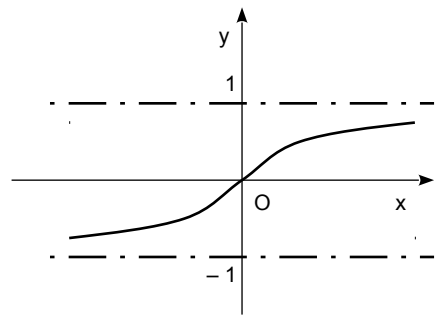
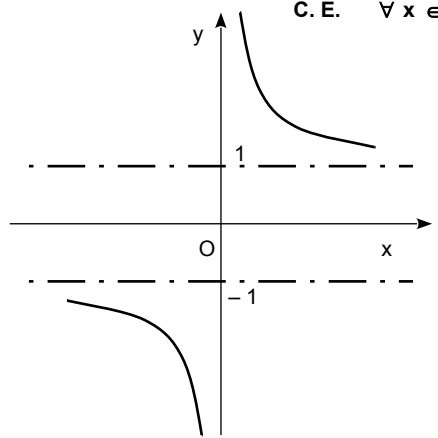
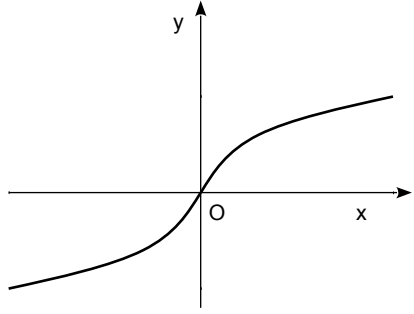
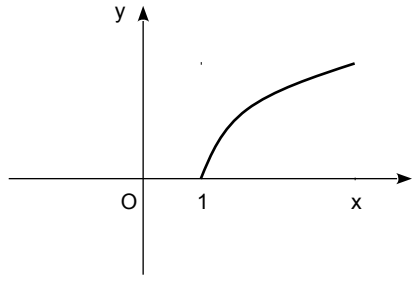
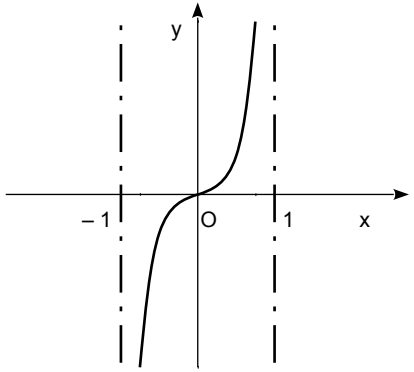
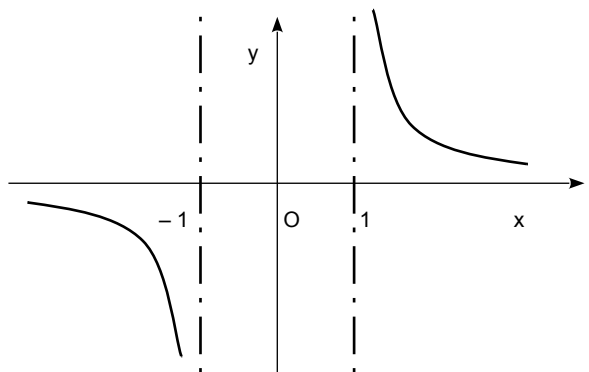


# FUNZIONI ELEMENTARI

|                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                               |                                                                                                                                                                                                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Funzione costante:</b><br>$y = c$<br>C.E. $\forall x \in \mathbb{R}$<br>                                                                                        | <b>Funzione identica:</b><br>$y = x$<br>C.E. $\forall x \in \mathbb{R}$<br>                                                                                                         | <b>Funzione valore assoluto:</b><br>$y =  x $<br>C.E. $\forall x \in \mathbb{R}$<br>                                                                                       |                                                                                                                                                                                                    |
| <b>Funzione potenza ad esponente intero positivo pari</b> $[n = 2k, k \in \mathbb{N}]$ :<br>$y = x^n$<br>C.E. $\forall x \in \mathbb{R}$<br>                       | <b>Funzione potenza ad esponente intero positivo dispari</b> $[n = 2k + 1, k \in \mathbb{N}]$ :<br>$y = x^n$<br>C.E. $\forall x \in \mathbb{R}$<br>                                 | <b>Funzione radice ad indice pari</b> $[n = 2k, k \in \mathbb{N}]$ :<br>$y = \sqrt[n]{x}$<br>C.E. $\forall x: x \geq 0$<br>                                                |                                                                                                                                                                                                    |
| <b>Funzione potenza ad esponente intero negativo pari</b> $[n = 2k, k \in \mathbb{N}]$ :<br>$y = x^{-n}$<br>C.E. $\forall x \in \mathbb{R} - \{0\}$<br>           | <b>Funzione potenza ad esponente intero negativo dispari</b> $[n = 2k - 1, k \in \mathbb{N}]$ :<br>$y = x^{-n}$<br>C.E. $\forall x \in \mathbb{R} - \{0\}$<br>                     | <b>Funzione radice ad indice dispari</b> $[n = 2k + 1, k \in \mathbb{N}]$ :<br>$y = \sqrt[n]{x}$<br>C.E. $\forall x \in \mathbb{R}$<br>                                   |                                                                                                                                                                                                    |
| <b>Funzione potenza ad esponente non intero negativo</b> $[\alpha \in (\mathbb{R} - \mathbb{Z}), \alpha < 0]$ :<br>$y = x^\alpha$<br>C.E. $\forall x: x > 0$<br> | <b>Funzione potenza ad esponente non intero compreso tra 0 e 1</b> $[\alpha \in (\mathbb{R} - \mathbb{Z}), 0 < \alpha < 1]$ :<br>$y = x^\alpha$<br>C.E. $\forall x: x \geq 0$<br> | <b>Funzione potenza ad esponente non intero maggiore di 1</b> $[\alpha \in (\mathbb{R} - \mathbb{Z}), \alpha > 1]$ :<br>$y = x^\alpha$<br>C.E. $\forall x: x \geq 0$<br> |                                                                                                                                                                                                    |
| <b>Funzione esponenziale con base compresa tra 0 e 1</b> $[0 < a < 1]$ :<br>$y = a^x$<br>C.E. $\forall x \in \mathbb{R}$<br>                                     | <b>Funzione esponenziale con base maggiore di 1</b> $[a > 1]$ :<br>$y = a^x$<br>C.E. $\forall x \in \mathbb{R}$<br>                                                               | <b>Funzione logaritmo con base compresa tra 0 e 1</b> $[0 < a < 1]$ :<br>$y = \log_a x$<br>C.E. $\forall x: x > 0$<br>                                                    | <b>Funzione logaritmo con base maggiore di 1</b> $[a > 1]$ :<br>$y = \log_a x$<br>C.E. $\forall x: x > 0$<br> |



|                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Funzione seno iperbolico</b><br/> <math>y = \sinh x = (e^x - e^{-x}) / 2</math> C. E. <math>\forall x \in \mathbb{R}</math></p>                                                 | <p><b>Funzione coseno iperbolico</b><br/> <math>y = \cosh x = (e^x + e^{-x}) / 2</math> C. E. <math>\forall x \in \mathbb{R}</math></p>                                                              |
| <p><b>Funzione tangente iperbolica</b><br/> <math>y = \tanh x = \sinh x / \cosh x = (e^x - e^{-x}) / (e^x + e^{-x})</math> C. E. <math>\forall x \in \mathbb{R}</math></p>            | <p><b>Funzione cotangente iperbolica</b><br/> <math>y = \coth x = \cosh x / \sinh x = (e^x + e^{-x}) / (e^x - e^{-x})</math> C. E. <math>\forall x \in \mathbb{R} - \{0\}</math></p>                 |
| <p><b>Funzione settore seno iperbolico</b><br/> <math>y = \operatorname{setth} x = \log(x + \sqrt{x^2 + 1})</math> C. E. <math>\forall x \in \mathbb{R}</math></p>                  | <p><b>Funzione settore coseno iperbolico</b><br/> <math>y = \operatorname{settc} x = \log(x + \sqrt{x^2 - 1})</math> C. E. <math>\forall x: x \geq 1</math></p>                                    |
| <p><b>Funzione settore tangente iperbolica</b><br/> <math>y = \operatorname{setttg} x = \frac{1}{2} \log \frac{1+x}{1-x}</math> C. E. <math>\forall x: -1 &lt; x &lt; 1</math></p>  | <p><b>Funzione settore cotangente iperbolica</b><br/> <math>y = \operatorname{settcotg} x = \frac{1}{2} \log \frac{x+1}{x-1}</math> C. E. <math>\forall x: (x &lt; -1) \vee (x &gt; 1)</math></p>  |