Answer on Question #43650 – Math – Algebra

factorize: x^2-(y+z)^2

Solution.

Factor the following:

$x^2 - (y+z)^2$

Factor the difference of two squares.

Factor the difference of two squares. $x^2 - (y+z)^2 = (x-(y+z))\,(x+(y+z))$:

$(x-(y+z))\,(x+y+z)$

Distribute -1 over $y+z$.

$-(y+z) = -y-z$:

Answer:

$$(x+\boxed{-y-z})\,(x+y+z)$$