

# HELIVÄLTUS

## kvadraatne jaotus

HELIVÄLTUS\_A\_JOONIS\_002\_kvadraatne\_jaotus

1

tervenoot   tervepaus	$\text{1/2} + \text{1/2} = 1$	1	$\text{1/2} + \text{1/2} = 1$	3
poolnoot   poolpaus	$\text{1/4} + \text{1/4} + \text{1/4} + \text{1/4} = 1$		$\text{1/4} + \text{1/4} + \text{1/4} + \text{1/4} = 1$	3
veerandnoot   veerandpaus	$\text{4/8} + \text{2/8} + \text{1/4} = 1$		$\text{1/8} + \text{1/8} = 1$	3
kaheksandiknoot   kaheksandikpaus	$\text{4/16} + \text{1/16} + \text{1/16} + \text{1/16} + \text{1/16} + \text{1/2} = 1$		$\text{1/16} + \text{1/16} + \text{1/16} + \text{1/16} + \text{1/4} + \text{1/2} = 1$	3
kuueteistkümnendiknoot   kuueteistkümnendikpaus	$\text{8/32} + \text{1/4} + \text{1/2} = 1$		$\text{8/32} + \text{1/4} + \text{1/2} = 1$	3
kolmekümnekahendiknoot   kolmekümnekahendikpaus	$\text{16/64} + \text{1/4} + \text{1/2} = 1$		$\text{16/64} + \text{1/4} + \text{1/2} = 1$	3
kuuekünneneljandiknoot   kuuekünneneljandikpaus				3

3 (1 + 1/2) = 3/2 (1 + 1/2) = 3/2

1	$\text{1/2} + \text{1/2} + \text{1/2} = 3/2$	$\text{1/2} + \text{1/2} + \text{1/2} = 3/2$	3
1/2	$\text{1/4} + \text{1/4} + \text{1/4} + \text{1/4} + \text{1/4} = 3/2$	$\text{1/4} + \text{1/4} + \text{3/8} + \text{1/8} + \text{1/4} + \text{1/4} = 3/2$	3
1/4	$\text{4/8} + \text{1/8} + \text{1/8} + \text{1/8} + \text{1/8} + \text{4/8} = 3/2$	$\text{2/8} + \text{1/4} + (\text{1/2} + \text{1/4} + \text{1/8}) + \text{2/16} = 3/2$	3
1/8	$(\text{5/16} + \text{1/16} + \text{1/16} + \text{1/16}) + (\text{1/16} + \text{5/16} + \text{1/16} + \text{1/16}) + ((\text{1/8} + \text{1/16}) + \text{3/16} + \text{1/8}) = 3/2$	$\text{8/16} + \text{1/8} + (\text{1/8} + \text{1/4}) + (\text{1/4} + \text{1/8}) + \text{1/8} = 3/2$	3
1/16	$\text{9/32} + \text{7/32} + \text{10/32} + \text{1/32} + \text{1/32} + \text{1/8} + \text{1/2} = 3/2$	$\text{16/32} + \text{2/32} + (\text{1/16} + \text{1/4} + \text{1/8} + \text{1/8} + \text{1/16}) + \text{1/16} = 3/2$	3
1/32	$\text{16/64} + \text{1/4} + (\text{1/4} + \text{1/8} + \text{1/16}) + \text{1/16} + \text{1/4} + (\text{1/8} + \text{1/16}) + \text{4/64} = 3/2$	$(\text{8/64} + \text{8/64} + \text{8/64} + \text{8/64}) + \text{32/64} + \text{1/2} = 3/2$	3
1/64			3

5 (1/2 + 1/4) = 3/4 1/2 = 2/4 (1/4 + 1/8) = 3/8

1	$(1/2 + 1/4) = 3/4$	$1/2 = 2/4$	
1/2	$\text{1/4} + (\text{1/4} + \text{1/8}) + \text{1/8} = 3/4$	$\text{1/4} + \text{1/4} = 2/4$	$(1/4 + 1/8) = 3/8$
1/4	$(\text{1/8} + \text{1/16}) + (\text{1/16} + \text{1/8}) + \text{1/8} + \text{1/8} + \text{1/8} = 3/4$	$(\text{1/8} + \text{1/16}) + \text{1/16} + \text{1/8} + \text{1/8} = 2/4$	$1/8 + 1/8 + 1/8 = 3/8$
1/8	$\text{4/16} + \text{4/16} + (\text{1/8} + \text{1/16}) + \text{1/16} = 3/4$	$\text{1/16} + \text{2/16} + \text{1/16} + \text{1/16} + \text{2/16} + \text{1/16} = 2/4$	$2/16 + 2/16 + 2/16 = 3/8$
1/16	$\text{8/32} + \text{8/32} + \text{1/4} = 3/4$	$\text{8/32} + (\text{1/8} + \text{1/16}) + \text{1/16} = 2/4$	$4/32 + 4/32 + 4/32 = 3/8$
1/32	$(\text{8/64} + \text{2/16}) + \text{1/8} + \text{1/4} + \text{1/8} = 3/4$	$\text{1/4} + \text{16/64} = 2/4$	$8/64 + 8/64 + 8/64 = 3/8$
1/64			