TABLE 14.2. The components of genetic variance determine resemblance between relatives

Relationship	V_A	V_D	V_{AA}	V_{AD}	V_{DD}
Identical twins	1	1	1	1	1
Parent/offspring	$\frac{1}{2}$		$\frac{1}{4}$		
Grandparent/grandchild	$\frac{1}{4}$		$\frac{1}{16}$		
Great-grandparent/ great-grandchild	$\frac{1}{8}$		$\frac{1}{64}$		
Half siblings	$\frac{1}{4}$		$\frac{1}{16}$		
First cousins	$\frac{1}{8}$		$\frac{1}{64}$		
Full siblings	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{8}$	$\frac{1}{16}$
Double first cousins	$\frac{1}{4}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{64}$	$\frac{1}{256}$

Adapted from Lynch M. and Walsh J.B. 1998. *Genetics and analysis of quantitative traits*. Sinauer Press, Sunderland, Massachusetts.

Numbers show the contribution of each variance component to the covariance between relatives.

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