

ma-join^{0,22}

$M_1 \oplus M_2$

\equiv_{def} mk-ma(1of(M_1) \oplus 1of(M_2);
1of(2of(M_1)) \oplus 1of(2of(M_2)));
1of(2of(2of(M_1))) \oplus 1of(2of(2of(M_2)));
1of(2of(2of(2of(M_1)))) \oplus 1of(2of(2of(2of(M_2)))));
1of(2of(2of(2of(2of(M_1)))))) \oplus 1of(2of(2of(2of(2of(M_2))))));
1of(2of(2of(2of(2of(2of(M_1))))))) \oplus 1of(2of(2of(2of(2of(2of(M_2)))))));
1of(2of(2of(2of(2of(2of(2of(M_1)))))))) \oplus
1of(2of(2of(2of(2of(2of(2of(M_2)))))))));
1of(2of(2of(2of(2of(2of(2of(2of(M_1)))))))))) \oplus
1of(2of(2of(2of(2of(2of(2of(2of(M_2))))))))));
1of(2of(2of(2of(2of(2of(2of(2of(2of(M_1))))))))))) \oplus
1of(2of(2of(2of(2of(2of(2of(2of(2of(M_2)))))))))))))

clarification:

$M_1 \oplus M_2$

\equiv_{def} mk-ma(fpf-join(IdDeq;1of(M_1);1of(M_2));
fpf-join(KindDeq;1of(2of(M_1));1of(2of(M_2)));
fpf-join(IdDeq;1of(2of(2of(M_1)));1of(2of(2of(M_2)))));
fpf-join(IdDeq;1of(2of(2of(2of(M_1)))));1of(2of(2of(2of(2of(M_2))))));
fpf-join(product-deq(Knd;Id;KindDeq;IdDeq);1of(2of(2of(2of(2of(M_1))))));1of(2of(2of(2of(2of(M_2))))));
fpf-join(product-deq(Knd;IdLnk;KindDeq;IdLnkDeq);1of(2of(2of(2of(2of(2of(M_1))))));1of(2of(2of(2of(2of(2of(M_2))))));
fpf-join(IdDeq;1of(2of(2of(2of(2of(2of(M_1))))));1of(2of(2of(2of(2of(2of(2of(M_2))))));
fpf-join(product-deq(IdLnk;Id;IdLnkDeq;IdDeq);1of(2of(2of(2of(2of(2of(2of(M_1))))));1of(2of(2of(2of(2of(2of(2of(M_2))))));
fpf-join(KindDeq;1of(2of(2of(2of(2of(2of(2of(2of(M_1))))));1of(2of(2of(2of(2of(2of(2of(2of(M_2))))));
fpf-join(KindDeq;1of(2of(2of(2of(2of(2of(2of(2of(2of(M_1))))));1of(2of(2of(2of(2of(2of(2of(2of(2of(M_2))))));
fpf-join(IdDeq;1of(2of(2of(2of(2of(2of(2of(2of(2of(M_1))))));1of(2of(2of(2of(2of(2of(2of(2of(2of(M_2)))))))))

http://www.cs.cornell.edu/Info/Projects/NuPr1/FDLcontent/p0_286125_/p16_86249_{ma-join}.html