



FIGURE 3.11 An improved version of the division hardware. The Divisor register, ALU, and Quotient register are all 32 bits wide, with only the Remainder register left at 64 bits. Compared to Figure 3.8 , the ALU and Divisor registers are halved and the remainder is shifted left . This version also combines the Quotient register with the right half of the Remainder register. (As in Figure 3.6, the Remainder register should really be 65 bits to make sure the carry out of the adder is not lost.)