

King Fahd University of Petroleum and Minerals  
College of Computer Sciences and Engineering  
Department of Computer Engineering

COE 308 – Computer Architecture (T041)

**Homework # 04 (due date: Sunday 26/12/2004)**

<b>*** Show all your work. No credit will be given if work is not shown! ***</b>
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**Problem # 1 (10 points):** Using the “restoring” division algorithm, find the result of dividing the unsigned number 27 by the unsigned number 5.

**Problem # 2 (10 points):** Representing numbers in 2’s complement, find the result of multiplying +17 by +6 using the algorithm presented in class.

**Problem # 3 (10 points):** Representing numbers in 2’s complement, find the result of multiplying +17 by – 6 using the algorithm presented in class.

**Problem # 4 (10 points):** What single-precision floating-point number does the following 32-bit word represent? **11001000101001000000000000000000.**

**Problem # 5 (10 points):** Show the single-precision floating-point representation of – 5.375.