| Instruction                | Meaning                                |
|----------------------------|--|
| Arithmetic                 |  |
| add                        | integer addition                       |
| subtract                   | integer subtraction                    |
| add immediate              | integer addition (register + constant) |
| add unsigned               | unsigned integer addition              |
| subtract unsigned          | unsigned integer subtraction           |
| add immediate unsigned     | unsigned addition with a constant      |
| move from coprocessor      | access coprocessor register            |
| multiply                   | integer multiplication                 |
| multiply unsigned          | unsigned integer multiplication        |
| divide                     | integer division                       |
| divide unsigned            | unsigned integer division              |
| move from Hi               | access high-order register             |
| move from Lo               | access low-order register              |
| Logical (Boolean)          |  |
| and                        | logical and (two registers)            |
| or                         | logical or (two registers)             |
| and immediate              | and of register and constant           |
| or immediate               | or of register and constant            |
| shift left logical         | shift register left N bits             |
| shift right logical        | shift register right N bits            |
| Data Transfer              |  |
| load word                  | load register from memory              |
| store word                 | store register into memory             |
| load upper immediate       | place constant in upper sixteen        |
|                            | bits of register                       |
| move from coproc. register | obtain a value from a coprocessor      |
| Conditional Branch         |  |
| branch equal               | branch if two registers equal          |
| branch not equal           | branch if two registers unequal        |
| set on less than           | compare two registers                  |
| set less than immediate    | compare register and constant          |
| set less than unsigned     | compare unsigned registers             |
| set less than immediate    | compare unsigned register and constant |
| Unconditional Branch       |  |
| jump                       | go to target address                   |
| jump register              | go to address in register              |
| jump and link              | procedure call                         |
|                            |  |

Figure 5.9 An example instruction set. The table lists the instructions offered by the MIPS processor.