

# The Register-to-Register Data Path

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## 1 Administrivia

### Today's Objectives

1. Understand the capabilities of the register-to-register data path

### Next Up

Read 7.2.2.

1. Understand control of the flow-through processor.

## 2 Warm-Up

1. Trace dataflow of the instruction

```
add r0, r1, r2
```

### 3 Problem Set 12.0

1. Trace dataflow of each of the following instructions:

```
ldr r2, [r1, r9]
```

```
str r7, [r8, #16]
```

```
beq while
```

2. What would need to be added to the data path to execute the instruction

```
ldr r3, [r6, r4, lsl #2]
```

3. What would need to be added to the data path to execute the instruction

```
str r3, [r9, r0]
```