

# Principles of Mathematics 10

## Sample Exam A

### Answer Key

(Updated October 2006)

| Cognitive Processes                | Weightings | Question Types                     |
|------------------------------------|------------|------------------------------------|
| <b>K</b> = Knowledge               | 13.3%      | <b>52</b> = Multiple Choice (MC)   |
| <b>U</b> = Understanding           | 73.3%      | <b>8</b> = Numerical Response (NR) |
| <b>H</b> = Higher Mental Processes | 13.3%      |                                    |

| Topics   | Weightings            | Prescribed Learning Outcomes (PLOs) |
|--|-----------------------|-------------------------------------|
| 1. Problem Solving                                     | Integrated Throughout | A                                   |
| 2. Number  | 20%                   | B                                   |
| 3. Patterns and Relations                              | 50%                   | C                                   |
| 4. Shape and Space                                     | 25%                   | D                                   |
| 5. Statistics and Probability (Chance and Uncertainty) | 5%                    | E                                   |

| Question Number | Keyed Response | Cognitive Process | Mark | Topic | PLO | Question Type |
|-----------------|----------------|-------------------|------|-------|-----|---------------|
| 1.              | C              | U                 | 1    | 5     | E2  | MC            |
| 2.              | A              | U                 | 1    | 5     | E1  | MC            |
| 3.              | A              | K                 | 1    | 2     | B3  | MC            |
| 4.              | C              | U                 | 1    | 2     | B1  | MC            |
| 5.              | B              | U                 | 1    | 2     | B1  | MC            |
| 6.              | C              | U                 | 1    | 2     | B2  | MC            |
| 7.              | 232.48         | U                 | 1    | 2     | B2  | NR            |
| 8.              | B              | H                 | 1    | 2     | B5  | MC            |
| 9.              | B              | K                 | 1    | 2     | B8  | MC            |
| 10.             | D              | U                 | 1    | 2     | B8  | MC            |
| 11.             | D              | U                 | 1    | 2     | B8  | MC            |
| 12.             | A              | H                 | 1    | 2     | B8  | MC            |
| 13.             | D              | U                 | 1    | 2     | B9  | MC            |
| 14.             | D              | U                 | 1    | 2     | B9  | MC            |
| 15.             | 4              | U                 | 1    | 2     | B9  | NR            |
| 16.             | C              | K                 | 1    | 3     | C1  | MC            |
| 17.             | C              | U                 | 1    | 3     | C2  | MC            |
| 18.             | B              | U                 | 1    | 3     | C2  | MC            |
| 19.             | A              | H                 | 1    | 3     | C4  | MC            |
| 20.             | 912            | U                 | 1    | 3     | C1  | NR            |
| 21.             | A              | U                 | 1    | 3     | C13 | MC            |
| 22.             | D              | U                 | 1    | 3     | C13 | MC            |
| 23.             | D              | K                 | 1    | 3     | C16 | MC            |
| 24.             | C              | H                 | 1    | 3     | C16 | MC            |

| Question Number | Keyed Response | Cognitive Process | Mark | Topic | PLO | Question Type |
|-----------------|----------------|-------------------|------|-------|-----|---------------|
| 25.             | C              | U                 | 1    | 3     | C15 | MC            |
| 26.             | B              | U                 | 1    | 3     | C17 | MC            |
| 27.             | A              | U                 | 1    | 3     | C17 | MC            |
| 28.             | D              | U                 | 1    | 3     | C18 | MC            |
| 29.             | A              | U                 | 1    | 3     | C18 | MC            |
| 30.             | 60             | U                 | 1    | 3     | C19 | NR            |
| 31.             | D              | U                 | 1    | 3     | C6  | MC            |
| 32.             | B              | U                 | 1    | 3     | C6  | MC            |
| 33.             | 49             | U                 | 1    | 3     | C5  | NR            |
| 34.             | A              | U                 | 1    | 3     | C5  | MC            |
| 35.             | B              | U                 | 1    | 3     | C5  | MC            |
| 36.             | D              | H                 | 1    | 3     | C5  | MC            |
| 37.             | C              | K                 | 1    | 3     | C9  | MC            |
| 38.             | C              | H                 | 1    | 3     | C7  | MC            |
| 39.             | A              | K                 | 1    | 3     | C8  | MC            |
| 40.             | C              | U                 | 1    | 3     | C8  | MC            |
| 41.             | 3              | U                 | 1    | 3     | C8  | NR            |
| 42.             | B              | U                 | 1    | 3     | C10 | MC            |
| 43.             | D              | U                 | 1    | 3     | C10 | MC            |
| 44.             | A              | U                 | 1    | 3     | C11 | MC            |
| 45.             | C              | U                 | 1    | 3     | C11 | MC            |
| 46.             | D              | K                 | 1    | 4     | D6  | MC            |
| 47.             | A              | U                 | 1    | 4     | D6  | MC            |
| 48.             | D              | U                 | 1    | 4     | D7  | MC            |
| 49.             | 27             | U                 | 1    | 4     | D2  | NR            |
| 50.             | C              | K                 | 1    | 4     | D1  | MC            |
| 51.             | A              | U                 | 1    | 4     | D4  | MC            |
| 52.             | C              | U                 | 1    | 4     | D5  | MC            |
| 53.             | B              | U                 | 1    | 4     | D5  | MC            |
| 54.             | C              | U                 | 1    | 4     | D5  | MC            |
| 55.             | 4.49           | U                 | 1    | 4     | D3  | NR            |
| 56.             | C              | H                 | 1    | 4     | D3  | MC            |
| 57.             | B              | U                 | 1    | 4     | D8  | MC            |
| 58.             | A              | U                 | 1    | 4     | D9  | MC            |
| 59.             | D              | U                 | 1    | 4     | D10 | MC            |
| 60.             | B              | H                 | 1    | 4     | D10 | MC            |