

# Match-Up

# Composite Functions

|           |                                                    |
|-----------|----------------------------------------------------|
| <b>1</b>  | $f(x) = x + 3$ $g(x) = 2x$<br>Find $fg(x)$         |
| <b>2</b>  | $f(x) = 10 - x$ $g(x) = 3x + 1$<br>Find $gf(x)$    |
| <b>3</b>  | $f(x) = x + 3$ $g(x) = 2x$<br>Find $gf(x)$         |
| <b>4</b>  | $f(x) = 2x - 1$<br>Find $ff(x)$                    |
| <b>5</b>  | $f(x) = 10 - x$ $g(x) = 3x + 1$<br>Find $fg(x)$    |
| <b>6</b>  | $f(x) = x^2$ $g(x) = x - 1$<br>Find $fg(x)$        |
| <b>7</b>  | $f(x) = 2x$ $g(x) = \frac{x}{x+1}$<br>Find $gf(x)$ |
| <b>8</b>  | $f(x) = x^2$ $g(x) = x - 1$<br>Find $gf(x)$        |
| <b>9</b>  | $f(x) = 2x$ $g(x) = \frac{x}{x+1}$<br>Find $fg(x)$ |
| <b>10</b> | $f(x) = x + 2$ $g(x) = (x - 1)^2$<br>Find $gf(x)$  |

|          |                     |
|----------|---------------------|
| <b>A</b> | $2x + 6$            |
| <b>B</b> | $4x - 3$            |
| <b>C</b> | $x^2 - 1$           |
| <b>D</b> | $\frac{2x}{2x + 1}$ |
| <b>E</b> | $x^2 + 2x + 1$      |
| <b>F</b> | $2x + 3$            |
| <b>G</b> | $\frac{2x}{x + 1}$  |
| <b>H</b> | $x^2 - 2x + 1$      |
| <b>I</b> | $31 - 3x$           |
| <b>J</b> | $9 - 3x$            |

|          |          |          |          |          |          |          |          |          |           |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> | <b>7</b> | <b>8</b> | <b>9</b> | <b>10</b> |
| <b>F</b> | <b>I</b> | <b>A</b> | <b>B</b> | <b>J</b> | <b>H</b> | <b>D</b> | <b>C</b> | <b>G</b> | <b>E</b>  |