

**Solve.**

(1)  $\frac{5 + 9x}{\sqrt{x + 1}}$

(2)  $\frac{4y + 9}{\sqrt{y}}$

(3)  $\frac{25 - x^2}{\sqrt{3x + 1}}$

(4)  $\frac{9 - x^2}{4x + \sqrt{x}}$

(5)  $\frac{\sqrt{x} + \sqrt[3]{4}}{\sqrt{x} - 4}$

$$(6) \frac{\sqrt{9 - 4y^2}}{\sqrt{y} + y}$$

$$(7) \frac{x^2 - 16}{\sqrt{x} - 4}$$

$$(8) \frac{5x^2 - 4x + 9}{\sqrt{12x} + 4}$$

$$(9) \frac{9 - \sqrt{5}}{4\sqrt{y} + 5}$$

$$(10) \frac{49x^2 - 49}{7\sqrt{x} + 14}$$

**Answer Key**

$$(1) \frac{5\sqrt{x+1} + 9x\sqrt{x+1}}{x+1}$$

$$(2) \frac{4y\sqrt{y} + 9\sqrt{y}}{y}$$

$$(3) \frac{25(\sqrt{3}x - 1) + 9x\sqrt{x+1}}{x+1}$$

$$(4) \frac{9(4x - \sqrt{x}) - x^2(4x - \sqrt{x})}{16x^2 - x}$$

$$(5) \frac{\sqrt{x}(\sqrt{x} + 4) + \sqrt[3]{4}(\sqrt{x} + 4)}{x - 16}$$

$$(6) \frac{(\sqrt{9 - 4y^2})(\sqrt{y} - y)}{y - y^2}$$

$$(7) \frac{(x^2 - 16)(\sqrt{x} + 4)}{x - 16}$$

$$(8) \frac{(5x^2 - 4x + 9)(\sqrt{12x} - 4)}{12x - 16}$$

$$(9) \frac{(9 - \sqrt{5})(4\sqrt{y} - 5)}{16y - 25}$$

$$(10) \frac{7(x^2 - 1)(\sqrt{x} - 2)}{x - 4}$$