

Find each product.

a) $(5 - 2\sqrt{3})(7 + 6\sqrt{3})$

	5	$-2\sqrt{3}$
7	35	$-14\sqrt{3}$
$+6\sqrt{3}$	$30\sqrt{3}$	$-12 \cdot 3 = -36$

$-1 + 16\sqrt{3}$

b) $(4 + 9\sqrt{2})(4 - 9\sqrt{2})$

$a^2 - b^2$
 $16 - 162$

	4	$+9\sqrt{2}$
4	16	$36\sqrt{2}$
$-9\sqrt{2}$	$-36\sqrt{2}$	$-81 \cdot 2 = -162$

-146

Simplify. Leave no decimals in your answer.

$$(64w^{-9}x^{\frac{6}{5}})^{-\frac{2}{3}}$$

$$= \left(\frac{64 x^{\frac{6}{5}}}{w^9} \right)^{-\frac{2}{3}}$$

$$= \left(\frac{w^9}{64 x^{\frac{6}{5}}} \right)^{\frac{2}{3}} = \frac{w^6}{64^{\frac{2}{3}} x^{\frac{4}{5}}} = \frac{w^6}{16 x^{\frac{4}{5}}}$$

Write the equation for the inverse.

$$y = \frac{(3x - 5)^4 - 8}{7} + 2$$

$$f^{-1} = \frac{\pm \sqrt[4]{7(x - 2) + 8} + 5}{3}$$