

EXERCICE 1

Calculer mentalement :

$\sqrt{1} = \dots\dots\dots$	$\sqrt{0} = \dots\dots\dots$	$\sqrt{400} = \dots\dots\dots$	$\sqrt{10\,000} = \dots\dots\dots$
$\sqrt{0,09} = \dots\dots\dots$	$\sqrt{8100} = \dots\dots\dots$	$\sqrt{0,0036} = \dots\dots\dots$	$\sqrt{5} \times \sqrt{20} = \dots\dots\dots$
$\sqrt{3} \times \sqrt{12} = \dots\dots\dots$	$\sqrt{\frac{16}{25}} = \dots\dots\dots$	$\frac{\sqrt{18}}{\sqrt{2}} = \dots\dots\dots$	$\sqrt{144+25} = \dots\dots\dots$
$\sqrt{\frac{8}{18}} = \dots\dots\dots$	$\sqrt{121} = \dots\dots\dots$	$\sqrt{1,44} = \dots\dots\dots$	$\sqrt{(-1)^2} = \dots\dots\dots$
$(\sqrt{14})^2 = \dots\dots\dots$	$\sqrt{1,171^2} = \dots\dots\dots$	$\sqrt{16} + \sqrt{9} = \dots\dots\dots$	$\sqrt{1} - \sqrt{100} = \dots\dots\dots$
$\sqrt{3^2+4^2} = \dots\dots\dots$	$\sqrt{3^2} + \sqrt{4^2} = \dots\dots\dots$	$\sqrt{3^2 \times 4^2} = \dots\dots\dots$	$(\sqrt{3+4})^2 = \dots\dots\dots$

EXERCICE 3

Ecrire plus simplement, après avoir développé et réduit les expressions numériques suivantes :

Exemple : $(\sqrt{3}-2)^2 = \sqrt{3}^2 - 2 \times \sqrt{3} \times 2 + 2^2 = 3 - 4\sqrt{3} + 4 = 7 - 4\sqrt{3}$
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$(\sqrt{11}-3)(\sqrt{11}+3) = \dots\dots\dots$
 $(5+\sqrt{3})^2 = \dots\dots\dots$
 $(1-\sqrt{2})(1+\sqrt{2}) = \dots\dots\dots$
 $(\sqrt{5}-2)^2 = \dots\dots\dots$
 $(\sqrt{5}-\sqrt{3})(\sqrt{5}+\sqrt{3}) = \dots\dots\dots$
 $(\sqrt{7}+\sqrt{2})^2 = \dots\dots\dots$

EXERCICE 4

Ecrire plus simplement les expressions numériques suivantes :

Exemples : $\sqrt{20} = \sqrt{4 \times 5} = \sqrt{4} \times \sqrt{5} = 2\sqrt{5}$ $\sqrt{12} - 2\sqrt{48} = \sqrt{4 \times 3} - 2\sqrt{16 \times 3} = \sqrt{4} \times \sqrt{3} - 2\sqrt{16} \times \sqrt{3} = 2\sqrt{3} - 2 \times 4\sqrt{3} = 2\sqrt{3} - 8\sqrt{3} = -6\sqrt{3}$
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$\sqrt{75} = \dots\dots\dots$
 $\sqrt{108} = \dots\dots\dots$
 $\sqrt{40} - \sqrt{160} = \dots\dots\dots$
 $\sqrt{48} + \sqrt{27} = \dots\dots\dots$
 $2\sqrt{500} - 3\sqrt{75} = \dots\dots\dots$