Effectuer des calculs sur les racines carrées

Écrire le plus simplement possible :

$A = \sqrt{32} \times \sqrt{2}$ $B = \sqrt{3} \times \sqrt{27}$ $C = \sqrt{3} \times \sqrt{36} \times \sqrt{3}$

$D = \dfrac{\sqrt{98}}{\sqrt{2}}$ $E = \dfrac{\sqrt{50}}{\sqrt{72}}$ $F = \left(4\sqrt{5}\right)^2$

$G = \dfrac{\sqrt{32} \times \sqrt{10}}{\sqrt{80}}$

Correction

$A = \sqrt{32} \times \sqrt{2} = \sqrt{32 \times 2} = \sqrt{64} = 8$

$B = \sqrt{3} \times \sqrt{27} = \sqrt{3 \times 27} = \sqrt{81} = 9$

$C = \sqrt{3} \times \sqrt{36} \times \sqrt{3} = \sqrt{3 \times 3} \times \sqrt{36} = \sqrt{9} \times \sqrt{36} = 3 \times 6 = 18$

$D = \dfrac{\sqrt{98}}{\sqrt{2}} = \sqrt{\dfrac{98}{2}} = \sqrt{49} = 7$

$E = \dfrac{\sqrt{50}}{\sqrt{72}} = \sqrt{\dfrac{50}{72}} = \sqrt{\dfrac{25}{36}} = \dfrac{\sqrt{25}}{\sqrt{36}} = \dfrac{5}{6}$

$F = \left(4\sqrt{5}\right)^2 = 4^2 \times \left(\sqrt{5}\right)^2 = 16 \times 5 = 80$

$G = \dfrac{\sqrt{32} \times \sqrt{10}}{\sqrt{80}} = \sqrt{\dfrac{32 \times 10}{80}} = \sqrt{4} = 2$