Exercice IV :

indices : remplacer, $\sqrt{a^2} = \ldots$, $45 = 5 \times \ldots$

Si $x = \sqrt{45}$, $E = 14x^2 - 25x + 6 = 14 \times \sqrt{45}^2 - 25 \times \sqrt{45} + 6 = 14 \times 45 - 25\sqrt{45} + 6 = 636 - 25\sqrt{9 \times 5}$

$= 636 - 25 \times 3 \times \sqrt{5} = \boxed{\mathbf{636 - 75\sqrt{5}}}$.