**Answer on Question #47938 – Math – Algebra**

What is eighteen x squared minus eighteen x plus four?

**Solution**

We have the expression

$$18x^2 - 18x + 4.$$

Its discriminant is equal to $D = 18^2 - 4 \cdot 4 \cdot 18 = 36 = 6^2$, so the roots are equal to $x_1 = \frac{18-6}{2 \cdot 18} = \frac{1}{3}$, $x_2 = \frac{18+6}{2 \cdot 18} = \frac{2}{3}$. Hence

$$18x^2 - 18x + 4 = 18\left(x - \frac{1}{3}\right)\left(x - \frac{2}{3}\right) = 2(3x - 1)(3x - 2)$$

**Answer:** $18\left(x - \frac{1}{3}\right)\left(x - \frac{2}{3}\right)$ or $2(3x - 1)(3x - 2)$.