

Homework — Factoring polynomials

Factor the following:

1. $x^3 + yx^2 + x$
2. $2x^3 + 4yx^2 + 2yx$
3. $4 + 4x + x^2$
4. $4x^2 + 8x + 4$
5. $x^2 - 6x + 9$
6. $4a^2 - 36a + 81$
7. $x^3 + 64$
8. $-(8 - 27x^3)$
9. $ab^4 - 4$
10. $\frac{a^2bm}{\sqrt{m}} + \frac{a^3b}{\sqrt{m}} + \frac{abra}{\sqrt{m}} + \frac{a^2bl}{\sqrt{m}} + \frac{a^2b^2}{\sqrt{m}} + \frac{a^2bo^2r\sqrt{m}}{m}$
11. Draw a picture that illustrates why $(a + b + c)^2 = a^2 + b^2 + c^2 + 2ab + 2bc + 2ac$.