If there is a problem you can't solve, then there is an easier problem you can solve: find it.
– George Polya

1. Solve $(x-3)^2 = 2x - 6$
2. Simplify $\frac{(3a^2b)^2}{ab^3}$
3. By completing the square for $x^2 - 4x + 3$, find its minimum value.
4. The slope of a line is 2 and the y-intercept is 3. What is the x-intercept
5. Write down a polynomial whose zeros are -1 and 4.
6. If $f(x) = x^2 - 3x + 2$, find $f(-3)$
7. Find the solutions to $x^2 - 2x - 2 = 0$
8. If $f(1) = 1$, $f(2) = 1$, $f(n) = f(n-1) + f(n-2)$ for $n > 2$, then calculate $f(7)$
9. Completely factor $x^4 - y^4$
10. The volume of a cone is given by $V = \frac{1}{3}\pi r^2 h$. Write down r in terms of V and h.

Problems compiled by Kovan Pillai