Solving Equations with Powers and Roots

(a)	(b)	(c)	(d)
Solve $$3x^2 - 25 = 2x^2$$ $$x = \pm 5$$	Solve $$4\sqrt{x} + 3 = 5\sqrt{x}$$ $$x = 9$$	Solve $$7x^3 + 16 = 5x^3$$ $$x = -2$$	Solve $$9 - \sqrt[3]{x} = 2\sqrt[3]{x}$$ $$x = 27$$

(e)	(f)	(g)	(h)
Solve $$4 + 5\sqrt{x} = 2\sqrt{x} + 16$$ $$x = 16$$	Solve $$6x^3 - 1 = 4 + x^3$$ $$x = 1$$	Solve $$72 - x^2 = x^2 - 26$$ $$x = \pm 7$$	Solve $$3 - 2\sqrt{x} = \sqrt{x} - 21$$ $$x = 64$$

(i)	(j)	(k)	(l)
Solve $$7\left(\sqrt[3]{x} - 1\right) = 13 + 3\sqrt[3]{x}$$ $$x = 125$$	Solve $$5x^2 - 48 = 2(30 + x^2)$$ $$x = \pm 6$$	Solve $$3(21 - x^3) = 9 - 5x^3$$ $$x = -3$$	Solve $$3\left(\sqrt{x} - 4\right) = 2\left(8 - \sqrt{x}\right) + \sqrt{x}$$ $$x = 49$$