Difference Between Two Squares

Video 120 on www.corbettmaths.com

Workout

Question 1: Factorise each of the following

(a) $x^2 - 25$ (b) $y^2 - 49$ (c) $w^2 - 100$ (d) $x^2 - 4$

(e) $c^2 - 64$ (f) $x^2 - 1$ (g) $x^2 - 900$ (h) $y^2 - 9$

(i) $16 - x^2$ (j) $1 - y^2$ (k) $81 - x^2$ (l) $144 - h^2$

(m) $x^2 - y^2$ (n) $a^2 - c^2$ (o) $9x^2 - 25$ (p) $4y^2 - 1$

(q) $49x^2 - 16$ (r) $100 - 81x^2$ (s) $9x^2 - 4y^2$ (t) $36a^2 - c^2$

(u) $121w^2 - 196y^2$ (v) $225 - 121y^2$

Question 2: Factorise **fully** each of the following

(a) $2x^2 - 32$ (b) $2y^2 - 18$ (c) $2x^2 - 200$ (d) $3x^2 - 75$

(e) $5c^2 - 20$ (f) $18x^2 - 2$ (g) $12x^2 - 147$ (h) $20y^2 - 320$

Question 3: Factorise each of the following

(a) $x^4 - 1$ (b) $y^4 - 16$ (c) $a^4 - 25$ (d) $x^4 - y^4$

(e) $h^2 - p^4$ (f) $16x^4 - 49$ (g) $y^6 - 36$ (h) $x^6 - 64$

(i) $81p^4 - x^6$ (j) $144x^8 - 1$

Apply

Question 1: Can you spot any mistakes?

Factorise $x^2 - 16$

$(x + 8)(x - 8)$

Factorise $x^2 - 25$

$(x - 5)(x - 5)$

Factorise fully $2y^2 - 50$

$2(y^2 - 25)$

Factorise $y^2 - 9w^2$

$(3w - y)(3w + y)$