

Roberts v Johnstone formula

Facts

Cost of new house	£86,500
Value of existing house	<u>£18,000</u>
Difference/net cost	£68,500

Formula

Net cost x rate of return x multiplier

i.e. £68,500 x 2% x 16 = £21,920



Swift v Carpenter facts

Accident 31 October 2013

Age 39 at injury
43 at trial.

No loss of life expectancy - expected to live to age 89.1

Cost new house	£2,350,000
Value existing house	<u>£1,450,000</u>
Net capital cost (difference)	£900,000



Swift v Carpenter formula

$$D = (NP-EP) - RI$$

Where

$$RI = (NP-EP) \times 1.05^{-LE}$$



Formula step 1 – property net cost

$$D = (NP - EP) - RI$$

D – Damages

NP - new property

EP - existing property

RI = reversionary interest

**Damages = (£2,350,000 - £1,450,000,
i.e. £900,000) minus RI**



Formula step 2 – reversionary interest

$$\mathbf{RI = (NP-EP) \times 1.05^{-LE}}$$

$$\mathbf{LE - 45.43 \text{ years}}$$

$$\mathbf{RI = (£900,000) \times 1.05^{-45.43} = £98,087}$$



Scientific calculator

Type 900,000 x 1.05

*Press exponent key (^)

*Enter -45.43

Press equals sign



iPhone/Excel

Unlock your portrait orientation

Use calculator icon and turn phone on its side

Type 900,000 x 1.05

*Press the x^y button

**Press the +/- button

Enter 45.43

Press equals

For Excel, shift 6 will get the exponent symbol



Formula step 3 - damages

$$D = (NP-EP) - RI$$

$$\mathbf{£900,000 - £98,087 = £801,913}$$

