

3 The chain rule – Part 1 —Answers

Answers

Work through these after you have tried the questions yourself.

2.1 differentiate the outside function (keeping the inside as it is), then multiply by the derivative of the inside.

2.2 the inside is $x^2 + 1$; its derivative is $2x$.

2.3 outside $\rightarrow 3(2x + 5)^2$; inside derivative 2; answer $3(2x + 5)^2 \cdot 2 = 6(2x + 5)^2$.

2.4 outside $\rightarrow 2(x^2 + 4)$; inside derivative $2x$; answer $2(x^2 + 4) \cdot 2x = 4x(x^2 + 4)$.

2.5 forgetting to multiply by the derivative of the inside function.