

6 Integration and the power rule — Part 2 — Answers

Answers

Work through these after you have tried the questions yourself.

2.1 it is the reverse of differentiation (it finds a function whose derivative is the given one).

2.2 $\int x^3 dx = \frac{x^4}{4} + C.$

2.3 $\int x^4 dx = \frac{x^5}{5} + C.$

2.4 many functions have the same derivative (they differ only by a constant), so a constant C is added to cover them all.

2.5 $\left[\frac{x^2}{2}\right]_0^4 = \frac{16}{2} - 0 = 8.$