

26th February



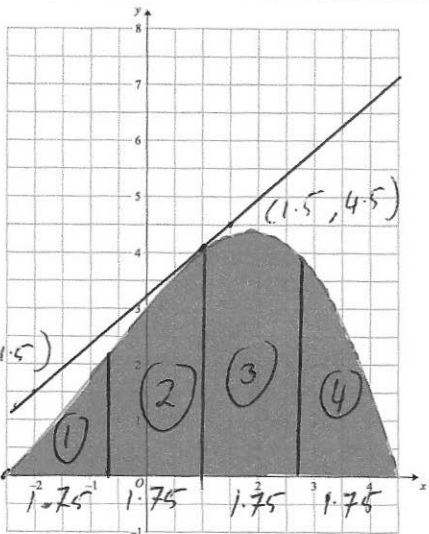
Corbettmaths

Work out

$$27^{-\frac{2}{3}}$$

$$\frac{1}{27^{\frac{2}{3}}} = \frac{1}{(\sqrt[3]{27})^2}$$

$$= \frac{1}{9}$$



Calculate an estimate for the rate of change at $x = 1$

* depends on your tangent

$$\frac{4.5 - 1.5}{1.5 - (-2)} = \frac{3}{3.5} = 0.857...$$

Calculate an estimate for area under the curve (shaded region)

$$A = \frac{1}{2}(a+b) \times h$$

A(1) $= \frac{1}{2}(0 + 2.2) \times 1.75 = 1.925$
 A(2) $= \frac{1}{2}(2.2 + 4) \times 1.75 = 5.425$
 A(3) $= \frac{1}{2}(4 + 3.9) \times 1.75 = 6.9125$
 A(4) $= \frac{1}{2}(3.9 + 0) \times 1.75 = 3.4125$

Answer: 17.625

Make c the subject

$$w = \frac{ac}{a-c}$$

$$w(a-c) = ac$$

$$aw - cw = ac$$

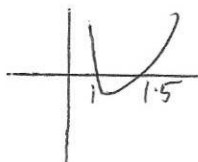
$$aw = ac + cw$$

$$aw = c(a+w)$$

$$c = \frac{aw}{a+w}$$

Solve $2x^2 - 5x + 3 < 0$

$$(2x-1)(2x-3)$$



$$0.5 < x < 1.5$$