



Year 8 Weekly Tutorial - 06

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1. Expand and simplify, $(x - 1)(3 - x)(x + 2)$

2. Simplify.

a) $\left(1\frac{1}{3}\right)^{-2}$

b) $\left(2 - \frac{2}{9}\right)^{-\frac{1}{2}}$

3. Simplify.

a) $\left(\frac{27xy^{-2}}{8x^{-2}y}\right)^{-\frac{1}{3}}$

b) $\left(\frac{a^7b^{-3}}{81a^{-5}b^3}\right)^{-\frac{1}{2}}$

4. Make x the subject.

a) $y = \frac{11-3x}{7+2x}$

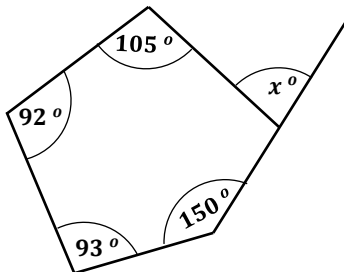
b) $y = \frac{8+4x}{5-7x}$

5. Find the gradient and y-intercept of the following straight lines.

a) $5x + 4y - 8 = 0$

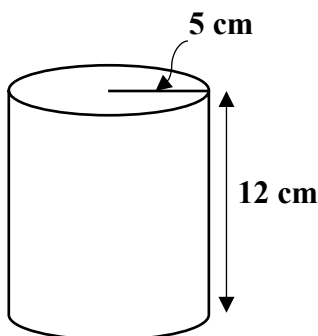
b) $3y + 12 = 9x$

6.



Find angle x° .

7.



a) Find the total surface area of the cylinder.

b) Find the volume of the cylinder.

8. Solve.

a) $2^{x-1} = 64$

c) $8^{x+1} = 32$

b) $9^{x+2} = 27$

d) $16^{2x-1} = 64$