

Year 8 Weekly Tutorial - 08

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1. Solve.

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

b) $\frac{3}{2}(x - 5) = x + 12$

2. Solve, $5x + 3y = 7$
 $3x - 2y = 5$

3. Simplify.

a) $\left(\frac{27x^{12}y^{-3}}{64y^6}\right)^{-\frac{1}{3}}$

b) $\left(\frac{125}{347}\right)^{-\frac{2}{3}}$

4. Make x the subject, $y = \frac{x^2 - 12}{5x^2 + 15}$

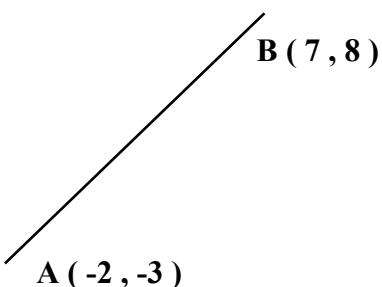
5. Expand and simplify; $(5 - x)(2x + 3)(3 - x)$

6. Find the gradient and y-intercept.

a) $3y - 2y = 7$

b) $\frac{3}{2}x + \frac{1}{3}y = 1$

7.



a) Find the gradient of the line AB.

b) Find the coordinates at midpoint of line AB.

8. Mark invested £ 15 000 in a bank which gives 1.5% interest per annum for first 3 years and 2% interest per annum after 3 years. How much interest would Mark earn if he keeps £ 15 000 in the account for 5 years?

9. It is found that car price is decreased by 3.5% annually. The value of a car after 5 years of buying is £ 23 000. Find the value of the car when it was bought 5 years ago?

10. You have two investment options.

Option A - 2.5% simple interest per annum for a deposit up to £ 10 000. 2.8% compound interest for any remaining money.

Option B - 3% simple interest per annum.

Which plan should you choose to receive the most interest after investing £ 18 000 for 3 years?