

Year 7 Tutorial - 11

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1. Factorize the following expressions.

a) $3x^2 - 45x$

b) $2a^2b + 4ab^2$

2. Expand and simplify.

a) $3(x - 4) - 2(x + 3)$

b) $2x(x + 3) - 2(x + 5)$

3. Solve the following equations.

a) $2(x - 3) = x - 5$

d) $\frac{3}{x} = 6$

b) $3(2x + 1) = 2(x - 7)$

e) $\frac{x+3}{2} = \frac{x-5}{3}$

c) $\frac{3}{2}(x + 5) = x + 2$

f) $\frac{5}{2x+11} = \frac{3}{2}$

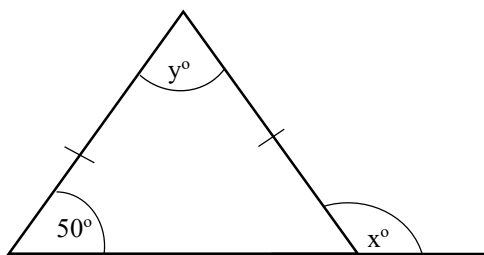
4. Solve the following inequalities.

a) $3x - 5 > 2x - 2$

b) $3(2x + 1) \leq 4x + 12$

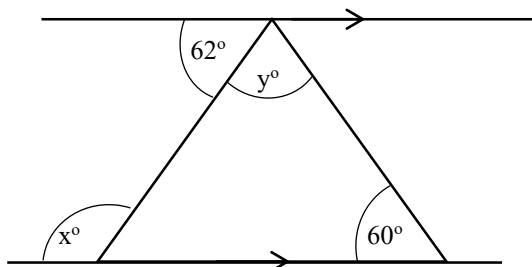
5. Find the HCF and LCM of 120 and 84.

6.



Find the angles x° and y° .

7.



Find the angles x° and y° .

2

8. Find the value of C , if $a = -4$, $b = \frac{1}{2}$ and $C = \frac{2a^2 - 6ab}{2ab}$
9. Simplify the following and give the fractions in its simplest form.
 - a) $3\frac{5}{8} - 1\frac{3}{4}$
 - b) $5\frac{3}{4} - 1\frac{1}{3} \times 1\frac{1}{5}$
 - c) $2\frac{1}{6} \times 4\frac{4}{5}$
 - d) $3\frac{2}{5} + 2\frac{1}{3} \div 1\frac{1}{6}$
10. Simplify the following.
 - a) $5 - 3(2 \times 7 + 2)$
 - b) $7^2 - 3^2 \times 4$
11. $\frac{2}{3}$ of children on a school trip are girls. There are 90 boys. How many children are on the trip?
12. A farmer has some sheep and chickens. $\frac{2}{5}$ of animals are sheep. $\frac{1}{3}$ of animals are chickens. The farmer sells $\frac{2}{3}$ of sheep and $\frac{1}{2}$ of his chickens. What fraction of animals the farmer has got now?