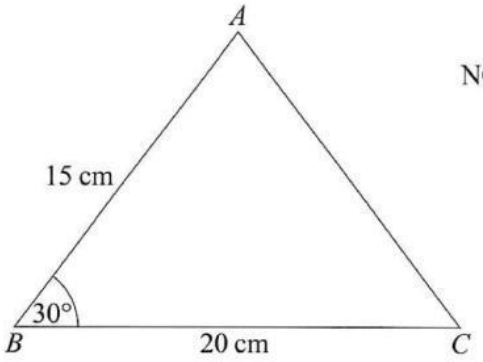
5. In ΔABC, $AB = 15\,\text{cm}$, $\angle B = 30°$ and $BC = 20\,\text{cm}$.



NOT TO SCALE

(a) Calculate the area of ΔABC. [2]

Area Formula After Substituting

Area =

ΔABC is enlarged by scale factor 3 to form ΔPQR.

(b) Calculate the area of ΔPQR. [2]

Length of AB_1 =

Length of BC_1 =

Area Formula After Substituting

Area =

5. (a) Write as a single fraction in simplest form

$$\frac{5}{x+3} - \frac{2}{x-1}$$

[3]

Fractions After applying L.C.D.

$$\frac{\qquad\qquad}{(\quad)(\quad)} - \frac{\qquad\qquad}{(\quad)(\quad)}$$

Simplified Fractions

$$\frac{\qquad\qquad}{(\quad)(\quad)}$$

LIVEWORKSHEETS

(b) Factorise and simplify

$$\frac{3y-12}{y^2-16}$$

[3]

Fraction After Initial Factorization

_____

( )( )

Simplified Fraction

_____

5. Given that $f(x)=\frac{5+x}{2}$ and $g(x)=\frac{6}{x}$, calculate

(a) the value of $g(1.5)$, [1]

(b) x where $f(x)=-9$, [2]

(c) a simplified expression for $g(f(x))$, [2]

_____

(d) the inverse of g, $g^{-1}(x)$. [1]

_____

5. The cost of a circular table is directly proportional to the square of the radius. A circular table with radius of 40 cm cost \$50.

(a) Find the cost of the circular table with a radius of 60 cm. [4]

Generic Proportional Formula =

The Value of The Constant Multiplier = _____

Proportional Formula with substitution

Cost = _____

LIVEWORKSHEETS

Cost of Table with 60 cm radius =

(b) If the cost of a circular table is \$200, calculate the radius of the table. [3]

Proportional Formula with substitution

\$200 = ——

Radius of \$200 Table =

5. Expand and solve the quadratic equation, correct to 2 decimal places.

$2x(x - 6) = 17$ [6]

Expanded Equation

= 17

Quadratic Formula Equation after substituting a, b and c

$$x = \frac{\pm\sqrt{\qquad\qquad}}{\qquad\qquad}$$

x = or =

5. Find all possible values of x that solve each of the following equations:

(a) $x^2 = 4$ [2]

x = or =

(b) $x^2 + 4x = 0$ [3]

Factorized Equation

=

x = or =

(c) $x^2 + 4x = 5$ [4]

Transposed Equation

=

x = or =

LIVEWORKSHEETS

5. The sales agents in a store earn $260 per week plus 8% commission on sales over $500.

In a certain week one agent sells goods valued at $1630.

(a) Calculate his gross pay for that week. [3]

Commissions Received = $

Gross Pay = $

After a busy week, another agent's gross pay that week was $436.

(b) Calculate the value of the goods she sold that week. [4]

Commissions Received = $

Value of Goods Sold = $

LIVEWORKSHEETS