

# Assignments for Factorization

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## Question 1

Factorize the following expression

a)  $x(1 - b) - y(1 - b)$

b)  $9r(z + 1) + 3r(z + 1)$

c)  $p^2 + q^2 + 5a(p^2 + q^2)$

d)  $x^2 + x y + 8x + 8y$

e)  $3(x + y) - 9(x + y)^2$

f)  $l(3m - 7n) - n(3m - 7n)$

g)  $(2m - 5)(3a - 2b) - (2m - 5)(2b - 3a)$

h)  $x(1 + y) + (7 + 7y)$

i)  $(6xy + 3x) + (2y + 1)$

j)  $x(y - z)^2 - a(z - y)^3$

k)  $z - 7 + 7xy - xyz$

## Question 2

Work out the following divisions.

(i)  $(11x - 121) \div 11$

(ii)  $(15x - 25) \div (3x - 5)$

(iii)  $10y(9y + 21) \div 2(3y + 7)$

(iv)  $9p^2q^2(3z - 12) \div 27pq(z - 4)$

## Question 3

Factorize the following expressions.

(i)  $z^2 + 6z + 8$

(ii)  $z^2 - 10z + 21$

(iii)  $z^2 + 6z - 16$

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