QUESTION 1 Factorise the following by taking the common factor out.

a $5x+10=$ _____ **b** $3x+6=$ _____ **c** $8y+16=$ _____

d $m^2+m=$ _____ **e** $2x^2+4x=$ _____ **f** $3xy+6x=$ _____

g $6a^2-3a=$ _____ **h** $3m+15=$ _____ **i** $9x+xy=$ _____

j $4x+16=$ _____ **k** $5b^2+10ab=$ _____ **l** $3m+21=$ _____

m $6m-3mn=$ _____ **n** $5x+15=$ _____ **o** $ay-y=$ _____

p $7mn-14mp=$ _____ **q** $x^2y^2-xyz=$ _____ **r** $8m^2n^2-16m^2n=$ _____

QUESTION 2 Factorise the following by taking the negative common factor out.

a $-3x-6=$ _____ **b** $-4a-8=$ _____ **c** $-5y-15=$ _____

d $-m^2+m=$ _____ **e** $-x^2+5x=$ _____ **f** $-l^2+2lm=$ _____

g $-x+4x^2=$ _____ **h** $-4m+m^2=$ _____ **i** $-3x-2x^2=$ _____

j $-6a-18a^2=$ _____ **k** $-7y+21=$ _____ **l** $-8x+16xy=$ _____

m $-3a-9=$ _____ **n** $-5xy+15x^2y^2=$ _____ **o** $-a^2y^2+ay=$ _____

QUESTION 3 Factorise the following.

a $ab+ac+ad=$ _____ **b** $px+py+pz=$ _____

c $2a^2b+3a^2b^2-5abc=$ _____ **d** $5m^3+10m^2+15m=$ _____

e $2a+4b+6c=$ _____ **f** $12x^2+15xy+18xz=$ _____

g $x^2y^2+xy^2+x^2y=$ _____ **h** $9a^2b-12a^2b^2=$ _____

i $5a^2-5b^2-10c^2=$ _____ **j** $6mp+12m^2p-18m^2p^2=$ _____

k $3ab-6ac-9ad=$ _____ **l** $12x^2y^2-36x^3y^3=$ _____

QUESTION 4 Factorise each of the following.

a $x(x+1)+2(x+1)=$ _____ **b** $y(y+2)+3(y+2)=$ _____

c $a(m+n)+b(m+n)=$ _____ **d** $c(2d+1)+2(2d+1)=$ _____

e $p(a+4)-3(a+4)=$ _____ **f** $t(t-2)-3(t-2)=$ _____

g $x(y-5)-3(y-5)=$ _____ **h** $p(p+4)-7(p+4)=$ _____

i $x(a-6)-4(a-6)=$ _____ **j** $2x(3x-7)+5(3x-7)=$ _____

k $a(b-c)+d(b-c)=$ _____ **l** $c(2a-3b)+d(2a-3b)=$ _____

QUESTION **4** Factorise.

a $x^3 - x^2 + 3x - 3 =$ _____

_____

b $y^3 + y^2 + y + 1 =$ _____

_____

c $9a - 9b + 4a^2 - 4ab =$ _____

_____

d $pq^2 - p^2q + 7q - 7p =$ _____

_____

e $am - 2m - 5a + 10 =$ _____

_____

f $3xy + 3xz + 2y + 2z =$ _____

_____