Video 118

Answers

Workout:

Question 1:

a)   (x+3)(x+4)   b)   (x+2)(x+4)   c)   (x+2)(x+3)   d)   (x+7)(x+1)

e)   (x+2)(x+2) *   f)   (x+5)(x+3)   g)   (x+3)(x+3)*   h)   (x+7)(x+4)

i)   (x+5)(x+5)*   j)   (x+2)(x+10)   k)   (x+24)(x+1)   l)   (x+8)(x+3)

m)   (x+2)(x+7)   n)   (x+20)(x+3)   o)   (x+25)(x+4)   p)   (x+17)(x+3)

Question 2:

a)   (x-3)(x+4)   b)   (x+6)(x-1)   c)   (x-2)(x+5)   d)   (x+4)(x-1)

e)   (x-6)(x+8)   f)   (x+8)(x-4)   g)   (x+7)(x-5)   h)   (x+11)(x-3)

Question 3

a)   (x+2)(x-5)   b)   (x+4)(x-5)   c)   (x-9)(x+3)   d)   (x-3)(x+1)

e)   (x-4)(x+3)   f)   (x+2)(x-6)   g)   (x-7)(x+3)   h)   (x-11)(x+5)

Question 4

a)   (x-3)(x-3)*   b)   (x-4)(x-5)   c)   (x-2)(x-7)   d)   (x-2)(x-11)

e)   (x-1)(x-8)   f)   (x-4)(x-8)   g)   (x-12)(x-3)   h)   (x-6)(x-8)

Question 5:

a)   (x-1)(x-8)   b)   (x+23)(x+1)   c)   (x+2)(x-7)   d)   (x-3)(x-4)

e)   (x+6)(x+6)   f)   (x+7)(x-9)   g)   (x+2)(x+12)   h)   (x + 12)(x + 5)

i)   (x-5)(x-6)   j)   (x-8)(x+4)   k)   (x-9)(x+7)   l)   (x-17)(x+1)

m)   (x-2)(x-9)   n)   (x-11)(x-2)   o)   (x+14)(x+4)   p)   (x-10)(x-11)

q)   (x-8)(x-8)   r)   (x+11)(x+11)* s)   (x-9)(x+8)   t)   (x-6)(x+3)

u)   (x-9)(x+5)   v)   (x-7)(x-9)

*Note: Any repeated factor can be written as a square

ie   (x+2)(x+2) = $(x+2)^2$

Question 6

a)   (x+15)(x-7)   b)   (x-22)(x+4)   c)   (x-5)(x-70)   d)   (x+16)(x+6)*

e)   (x+11)(x+14)   f)   (x-60)(x+5)   g)   (x-20)(x-9)   h)   (x-15)(x+14)

Apply

Question 1:

a could be   21,   -21,   12,   -12,   9,   -9

Question 2:

b could be   8,   -8,   17,   -17,   10,   -10

Question 3:

c could be   0,   5,   8,   9   (these are the only possible positive values)

Question 4:

Factorise $x^2 + x - 6$ Factorise $x^2 + 10x + 9$

   (x-3)(x+2)   (x+3)(x+3)

(The signs are the wrong way round)   (3+3 does not =10!)

Factorise $x^2 -7x +12$ Factorise $x^2 +8 x + 16$

   (x+5)(x+2)   (x+4)(x+4)

(The signs should both be "-")   (Correct, but could be written $(x+4)^2$)