COSMOS

COACHING CENTRE

1. Copy and complete the working to solve each equation

a $x^2 + 9x + 20 = 0$
$(x + 5)(\underline{\quad}) = 0$
$x + 5 = 0$ or $\underline{\quad} = 0$
$x = \underline{\quad}$ or $x = \underline{\quad}$

b $x^2 - 2x - 24 = 0$
$(x - 6)(\underline{\quad}) = 0$
$x - 6 = 0$ or $\underline{\quad} = 0$
$x = \underline{\quad}$ or $x = \underline{\quad}$

c $x^2 + 4x - 45 = 0$
$(x + 9)(\underline{\quad}) = 0$
$x + 9 = 0$ or $\underline{\quad} = 0$
$x = \underline{\quad}$ or $x = \underline{\quad}$

d $x^2 - 10x + 16 = 0$
$(x - 8)(\underline{\quad}) = 0$
$x - 8 = 0$ or $\underline{\quad} = 0$
$x = \underline{\quad}$ or $x = \underline{\quad}$

2. Solve these quadratic equations

a $x^2 + 8x + 12 = 0$
b $x^2 + 11x + 24 = 0$
c $x^2 + 7x + 10 = 0$
d $x^2 + 5x - 14 = 0$
e $x^2 + 4x - 12 = 0$
f $x^2 + 7x - 30 = 0$
g $x^2 - 12x + 32 = 0$
h $x^2 - 9x + 18 = 0$
i $x^2 - 10x + 21 = 0$

3. Solve these quadratic equations that use perfect squares

a $x^2 + 6x + 9 = 0$
b $x^2 + 4x + 4 = 0$
c $x^2 + 14x + 49 = 0$
d $x^2 + 24x + 144 = 0$
e $x^2 - 10x + 25 = 0$
f $x^2 - 16x + 64 = 0$

4. Solve these quadratic equations by first rearranging to standard form

a $x^2 = 3x + 10$
b $x^2 = 7x - 10$
c $x^2 = 6x - 9$
d $x^2 = 4 - 3x$
e $14 - 5x = x^2$
f $x^2 + 16 = 8x$

5. Solve these equations by first taking out the common factor

a $2x^2 - 2x - 12 = 0$
b $3x^2 + 24x + 45 = 0$
c $4x^2 - 24x - 64 = 0$
d $4x^2 - 20x + 24 = 0$
e $2x^2 - 8x + 8 = 0$
f $3x^2 + 6x + 3 = 0$