Quadratic Equations Ex 8.3 Q1

Answer :

We have been given,

$(x-4)(x+2)=0$

Now, in order to find the roots of the equation, one of the products has to be equal to 0.

Therefore,

$(x-4)=0$

$x=4$

Or

$(x+2)=0$

$x=-2$

Therefore, $\boxed{x=4}$ or $\boxed{x=-2}$.

Quadratic Equations Ex 8.3 Q2

Answer :

We have been given,

$(2x+3)(3x-7)=0$

So, one of the products must be equal to zero. Therefore now we equate both the products to zero.

$(2x+3)=0$

$2x=-3$

$x=\frac{-3}{2}$

Or

$(3x-7)=0$

$3x=7$

$x=\frac{7}{3}$

Therefore, $\boxed{x=\frac{-3}{2}}$ or $\boxed{x=\frac{7}{3}}$.

Quadratic Equations Ex 8.3 Q3

Answer :

We have been given,

$4x^2+5x=0$

Therefore we have,

$x(4x+5)=0$

Now, one of the products must be equal to zero for the whole product to be zero. Hence we equate both the products to zero in order to find the value of x.

Therefore,

$x=0$

Or

$4x+5=0$

$4x=-5$

$x=\frac{-5}{4}$

Hence, $\boxed{x=0}$ or $\boxed{x=\frac{-5}{4}}$.

Quadratic Equations Ex 8.3 Q4

Answer :

We have been given,

$9x^2-3x-2=0$

Therefore, we solve this now

$$9x^2-6x+3x-2=0$$

$$3x(3x-2)+1(3x-2)=0$$

$$(3x+1)(3x-2)=0$$

Now, one of the products must be equal to zero for the whole product to be zero. Hence we equate both the products to zero in order to find the value of x.

Therefore,

$3x+1=0$

$3x=-1$

$x=\frac{-1}{3}$

Or

$3x-2=0$

$3x=2$

$x=\frac{2}{3}$

Hence, $\boxed{x=\frac{-1}{3}}$ or $\boxed{x=\frac{2}{3}}$.

********** END **********