SOLVING QUADRATIC EQUATIONS

Solve by three different methods:

By square root method:

x-1 = x or x-1 = -x

x = 0.5

------------------------------------------------------------------------------- By first expanding the left side (of the equation):

X2 – 2x + 1 = x2

2x = 1

x = 0.5

------------------------------------------------------------------------------- By factoring a difference of squares

(x-1+x)(x-1-x) = 0

-(2x-1) = 0

2x = 1

x = 0.5

Solve: \*\* Use the most efficient method.

\*\*Give all solutions in exact, simplified form.

1.

(3x+4)(x+2) = 0 x = 4 or 0

3x+4 = 0 or x+2 = 0

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3. 4.

x2 – 12x + 36 – 8x = 0 5x2 + 3x – 15 = 0

x2 – 20x + 36 = 0

(x-2)(x-18) = 0

X = 2 or 18

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5. 6.

4(x+3)2 = 32 x =

(x+3)2 = 8