

expect 3 solutions

$4x^3 - 36x = 0$ ☺ GCF ~~DOTS~~ ~~TRI~~ ~~GROUP~~ ~~TRICKY~~

GCF $4x(x^2 - 9) = 0$ ~~GCF~~ ~~DOTS~~ ~~TRI~~ ~~GROUP~~ ~~TRICKY~~

DOTS $4x(x+3)(x-3) = 0$

$\frac{4x}{4} = \frac{0}{4} \Rightarrow x=0$
 $x+3=0 \Rightarrow x=-3$
 $x-3=0 \Rightarrow x=3$

$x^2 + 3x = 10$
 $-10 -10$

$x^2 + 3x - 10 = 0$ TRI

-1	10
1	-10
-2	5
2	-5

$(x-2)(x+5) = 0$
 $x-2=0 \Rightarrow x=2$
 $x+5=0 \Rightarrow x=-5$

$2x^2 + 15x = 8$
 $-8 -8$

$2x^2 + 15x - 8 = 0$ TRICKY

$2x^2 + 15x - 8 = 0$

-1	16
2	-8
2	-8
-4	4

$(2x^2 - 1x) + (16x - 8) = 0$
 $x(2x-1) + 8(2x-1) = 0$

$(2x-1)(x+8) = 0$
 $2x-1=0 \Rightarrow x=\frac{1}{2}$
 $x+8=0 \Rightarrow x=-8$