9.6b Solving $ax^2+bx+c=0$

* add in $=0$ .. finding zeros

① $4m^2+9m+5=0$

$1m \cdot \frac{5}{5m}$ $\quad$ $4m \cdot \frac{1}{4m}$

$1m \cdot 4m$
$2m \cdot 2m$

$1 \cdot 5$ $\quad$ $-1 \cdot -5$

$(1m+1)(4m+5)=0$

$1m+1=0$ $\quad$ $4m+5=0$
$-1 \quad -1$ $\quad$ $-5 \quad -5$
$1m=-1$ $\quad$ $4m=-5$
$\frac{1m}{1}=\frac{-1}{1}$ $\quad$ $\frac{4m}{4}=\frac{-5}{4}$
$m=-1$ $\quad$ $m=-\frac{5}{4}$

② $-6x^2-13x-6=0$

* when x^2 is negative factor it out!

③ $7a^2+2a=5$ ← hmmm... not like others!

Homework

(23) $2x^2-3x-35=0$

(25) $4a^2+11a-3=0$

(27) $8t^2-2t=3$

(29)* $b(20b-3)-2=0$

(42) $2x^2+x-1=0$