## Question 1
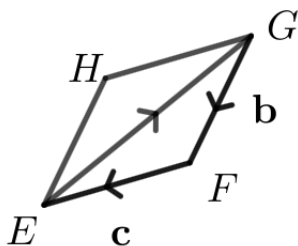
Solve by factorising:

$x^2 + 15\,x + 56 = 0$

## Question 2

$P$ has coordinates $(1, 0)$.

$Q$ has coordinates $(3, k)$.

The gradient of $PQ$ is $-2$.

Find the value of $k$.

## Question 3

$EFGH$ is a parallelogram.

Find $\overrightarrow{EG}$ in terms of $\mathbf{b}$ and $\mathbf{c}$



## Question 4

SIB Bank pays 2.2% compound interest each year.

ALN Bank also pays compound interest, but at 5.3% for the first year and at 1% each extra year. Which bank would pay more interest on a £3200 investment over 7 years?

## Question 1

Solve by factorising:

$x^2 + 15x + 56 = 0$

$(x + 7)(x + 8) = 0$

$x = -7, \ x = -8$

## Question 2

$P$ has coordinates $(1, 0)$.

$Q$ has coordinates $(3, k)$.
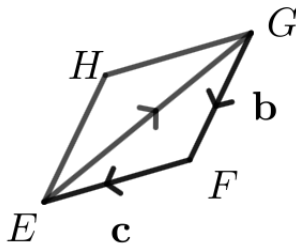
The gradient of $PQ$ is $-2$.

Find the value of $k$.

$k = -4$

## Question 3

$EFGH$ is a parallelogram.

Find $\overrightarrow{EG}$ in terms of $\mathbf{b}$ and $\mathbf{c}$

$-\mathbf{b} - \mathbf{c}$ or $-\mathbf{c} - \mathbf{b}$



## Question 4

SIB Bank pays 2.2% compound interest each year.

ALN Bank also pays compound interest, but at 5.3% for the first year and at 1% each extra year.

Which bank would pay more interest on a £3200 investment over 7 years?

SIB