$\begin{cases} -2z-2w=-24 \\ 2z+7w=49 \end{cases}$ add

$5w=25$

$w=5$ Replace in eqn ②

$z+w=12$

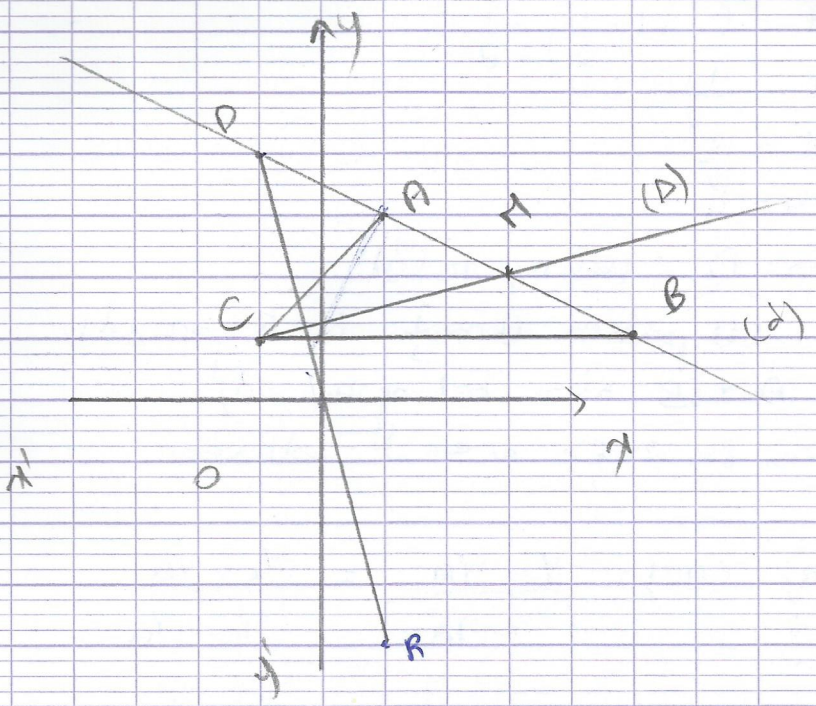
$z+5=12$

$z=7$

Thus, the bag contains 7 black pearls & 5 golden pearls

Ex3

1) a)



b) (d) passes through A if coordinates of A satisfy eqn of (d)

(d): $y_A \overset{?}{=} x_A\left(-\frac{1}{2}\right)+\frac{7}{2}$

$3 \overset{?}{=} 1\left(-\frac{1}{2}\right)+\frac{7}{2}$

$3 \overset{?}{=} \frac{-1+7}{2}$

$3 \overset{?}{=} \frac{6}{2}$

$3=3$ Then pt A belongs to (d)