## Angles in Quadrilaterals

Q1. Calculate the missing angle in each quadrilateral.



d)

e)

f)


Q2. Calculate the missing angle in each diagram.


c)


f)


Q3.
a) Two angles in a quadrilateral are $55^{\circ}$ and $65^{\circ}$ and the other two are equal. What size are the other two angles?
b) An isosceles trapezium has an angle of $87^{\circ}$. What are the sizes of the other three angles?
c) Simon measures the angles of a quadrilateral. He says the angles are $54^{\circ}, 110^{\circ}, 64^{\circ}$ and $134^{\circ}$. Could he be right? Explain your answer.
d) Clare measures the angles in a quadrilateral. She says two opposite angles are equal the other two are not. What type of quadrilateral was Clare measuring?

## Angles in Quadrilaterals

Solutions
Q1.
a) $\mathrm{a}=104^{\circ}$
b) $b=75^{\circ}$
c) $\mathrm{c}=63^{\circ}$
d) $\mathrm{d}=79^{\circ}$
e) $e=54^{\circ}$
f) $\mathrm{f}=117^{\circ}, \mathrm{g}=63^{\circ}$

Q2.
a) $h=53^{\circ}$
b) $\mathrm{i}=61^{\circ}$
c) $\mathrm{j}=28^{\circ}, \mathrm{k}=104^{\circ}$
d) $\mathrm{m}=94^{\circ}$
e) $n=67^{\circ}, p=231^{\circ}$
f) $q=73^{\circ}, r=107^{\circ}, s=80^{\circ}$

Q3.
a) $120^{\circ}$
b) $87^{\circ}, 93^{\circ}$ and $93^{\circ}$
c) The angles in the quadrilateral would add to $362^{\circ}$ not $360^{\circ}$.
d) A Kite.

