## Bearings - advanced

Name:

1) Find the bearing of $Y$ from $X$

2) In the diagram below, Triangle ABC is isosceles and angle ABC is $90^{\circ}$.

Find the bearing from B to A .

3) In the diagram below, triangle ABC is isosceles and angle ABC is $90^{\circ}$. Find the bearing from C to A , using 3 figures in your answer.

4) A lighthouse, $L$, is 9.2 km due West of a helicopter, H .

A ship, S, is 8.8 km due North of the lighthouse, L.
Find angle LHS, rounded to 1 decimal place.
5) Taunton is 30.6 km due West of Portown.

Taunton is also 47.3 km due South of Keytown.
Find the bearing of Portown from Keytown, rounded to the nearest degree.
6) Towns D and A are on bearings of $046^{\circ}$ and $149^{\circ}$ respectively from town E. ED = 15 km . EA = 17 km .

Find the
a) distance DA b ) bearing of A from D
giving your answers to 3 significant figures.
7) A helicopter flies on a bearing of $027^{\circ}$ from P to Q , where $\mathrm{PQ}=31 \mathrm{~km}$. It then flies for 38 km to a point R. Given that R is 40 km from P , calculate the bearings of $x^{\circ}$ and $y^{\circ}$ giving your answers to the nearest whole number.

8) A helicopter flies on a bearing of $026^{\circ}$ from A to $B$, where $A B=32 \mathrm{~km}$. It then flies for 40 km to a point $C$. Given that $C$ is 38 km from $A$, calculate $\mathbf{a}$ ) the bearing of $C$ from $B$ and $\mathbf{b}$ ) the bearing of $A$ from C , giving your answers to the nearest whole number.

Solutions for the assessment Bearings - advanced

1) Bearing $=262^{\circ}$

2) Bearing $=225^{\circ}$
3) angle LHS $=43.7^{\circ}$
4) a) 25.1 km, b) $185^{\circ}$
5) 

a) The bearing of $C$ from $B$ is $143^{\circ}$
b) The bearing of A from C is $275^{\circ}$
3) Bearing $=270^{\circ}$
5) Bearing $=147^{\circ}$
7) The bearing of $x^{\circ}$ is $137^{\circ}$ and $y^{\circ}$ is $270^{\circ}$

