

Grid lines on a map:

the poles

reading

outdoors

The Crab Nebula The Great Bear The Milky Way Orion's Belt

To grid north

the Pole Star:

will point:

Point to grid north Point to true north

longitude exactly

Setting or orientating a map is:

Follow lines of latitude and

Get closer together approaching

Holding it so that the contour numbers are the right way for

Positioning your map relative to the features on the ground Holding it flat and horizontal Folding it correctly for use

Which star group can be used to find

A freely-suspended magnetic needle

To the geographical north pole Straight down to the ground To the magnetic north pole

Name and Initals

1

Date of Birth

## Headquarters Air Cadets Examination

1. Use black or dark blue pen, NOT pencil.

2. Mark one answer per question with a cross. 3. If you wish to change an answer, cancel the

Leading Cades 32/2 Basic Navigation

-	Generated	19-Jul-04
	Serial:	767

Mark:

original mark and	mark another single answer.  Date of Exam	answer.
	Squadron/Unit	Wing
	5 Which of the following statements about the direction of magnetic north from locations in the UK, is true?	8 Where is information on the grid magnetic angle located on an M726 OS map:
ude and r approaching	a It differs from both true and grid north  b It is the same as grid north  c It is the same as both true and grid north	a At the centre of the top margin b On the back of the map c In the extreme left hand side of the map d At the centre of the bottom
a map is:	d It is the same as true north	at the centre of the bottom margin
he contour ght way for	6 Which of these symbols represents magnetic north?	9 What is the purpose of liquid in the capsule of a compass?
p relative to e ground	аz ь х	a Prevents the needle from moving b Increases the needle's sensitivity
horizontal	c w	c Allows the needle to settle down quickly
for use	<b>→ → →</b>	d Allows the needle to be seen more clearly
		10 A compass needle may be affected by iron objects placed close by. This is called:
r	w x y z	a Magnetic orientation
		b Magnetic variation
gnetic needle	7 Magnetic Variation is: a The angular difference between	c Magnetic deviation d Magnetic fluctuation
l north pole	grid north and magnetic north  The angular difference between true north and grid north	11 Which of these objects would cause compass deviation if held close to your compass
ne ground rth pole	c The angular difference between grid lines and lines of longitude  d The angular difference between true north and magnetic north	a Pencil b Bic Biro c Highlighter
	True for the dried magnetic morth	d Computer Screen

X A selected answer.

12 How can we remember when changing magnetic bearings to grid bearings?		17	17 How much time should be added to a journey on foot for every 200 metres climbed, using Naismith's rules?	22	22 An area of low pressure is also kno		
a	Always minus	а	25 minutes	а	An occluded front		
b c	Always a plus  MAG to GRID - get RID	Ь	20 minutes	b c	A warm front  An anticyclone		
d	MAG to GID - ADD	<i>c</i>	30 minutes	d	A depression		
13 a b c d d 14 a b 5	The grid bearing between 2 features on a map was measured to be 040 degrees (Grid). If the grid magnetic angle is 6 degrees west of grid north, what is the magnetic bearing?  034 degrees  040 degrees  043 degrees  046 degrees  When walking on a bearing in good visibility, the best technique is to:  Select a distant feature that is along your intended direction of travel  Send a team member out 50 metres and walk to there  Select an object 5 metres in front and walk to it  Follow your compass and ignore the countryside  What is a Roamer?  Acts a a magnifier	18 a b c d 19 a b c d 20 a b c d	Measuring distances accurately whilst out walking helps you particularly to:  Calculate magnetic variation  Reduce the area of uncertainty in your position  Choose the shortest route  Calculate the gradient  Contouring means:  Walking around a hill  Loosing as much height as possible  Gaining as much height as possible  Walking over a hill  Which air mass starts off very cold with dry air but arrives in the UK warn and wet:  Returning polar maritime  Polar maritime  Tropical continental  Arctic maritime	23 a b c d 24 a b c d 25 a b c d	Depressions move under the influence of:  Lower winds  Cold fronts  Upper winds  Warm fronts  Stratus is what type of cloud:  Hair-like  Thread-like  Lumpy or heaped  Featureless layer  What is navigation all about?  Knowing where you are on the model of the color		
	Ensures better accuracy. It finds a position to the third grid reference point on a Silva compass.  Helps you to navigate  Reads off the grid reference	21 a b	The diagram shows:  Warm front  Occluded front  Cold front				
٠	You are at a point where variation is 1 degree W, and Grid Magnetic Angle is 6 degrees W. If the magnetic bearing of a trig point is 150 degrees what is its Grid bearing?	d	Isobar				

157 degrees 144 degrees 143 degrees 156 degrees