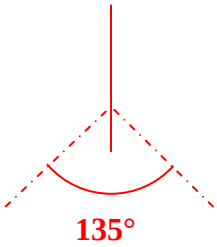
Angles

Many of the practice Nav Rules exams have one or two questions on "angles", mostly concerning the arc of various lights. Some examples are given below.

My suggestion is to **remember that the stern light covers an arc of 135°**, showing equally on either side of the boat. Then you can calculate all the other angles. For example,

(A) The Masthead Light covers the rest of the circle not covered by the stern light.
(B) Each sidelight covers its side of the boat, up to the stern light.
(C) The stern light covers half its arc on each side of the boat.
(D) Calculation of the limits of the stern light, abaft of the beam, involves a right angle = 90°.

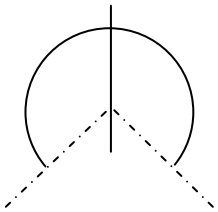
MEMORIZE
Arc of Stern Light
is 135°



(A)
Calculate
Arc of Masthead Light

360
-135
225

225°



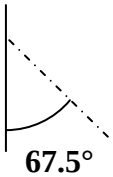
(B)
Calculate
Arc of Side Light

225 ÷ 2
= **112.5**

112.5°

(C)
Calculate
Arc of Stern Light
on each side of boat

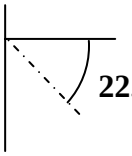
135 ÷ 2
= **67.5**



67.5°

(D)
Calculate
Abaft of the Beam

112.5
- 90.0
22.5



22.5°

90.0
- 67.5
22.5

INTERNATIONAL & INLAND The arc of visibility for sidelights is from right ahead to _____

a. 22.5° abaft the beam
b. abeam
c. 22.5° forward of the beam
d. 135° abaft the beam

INTERNATIONAL & INLAND The sternlight shall be positioned such that it will show from dead astern to how many degrees on each side of the stern of the vessel?

a. 22.5° b. 67.5° c. 112.5° d. 135°

INTERNATIONAL & INLAND A vessel is overtaking when she approaches another from more than how many degrees abaft of the beam?

a. 0.0° b. 11.25° c. 22.5° d. 45.0°

INTERNATIONAL & INLAND An overtaking situation would be one in which one vessel is approaching another from more than how many degrees abaft the beam?

a. 0° b. 10° c. 22.5° d. none of the above

INTERNATIONAL & INLAND The arc of visibility for a sidelight is?

a. 22.5° b. 67.5° c. 112.5° d. 225°