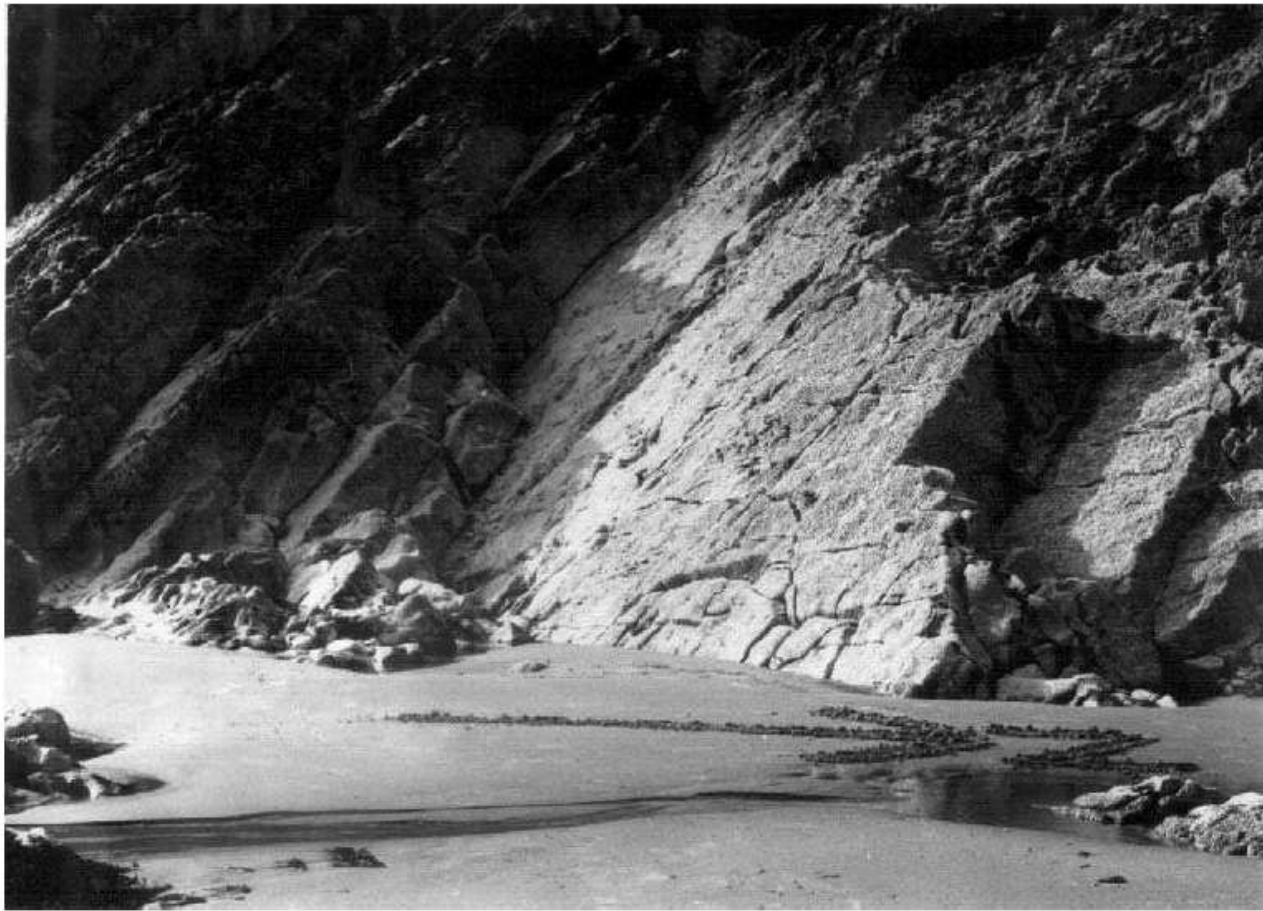


## PROBLEM 2.1

The photograph shows dipping beds of Carboniferous Limestone at Brandy Cove, Gower, South Wales. The north direction is shown by an arrow in the sand.

- (a) What is the approximate direction of the strike of these beds? (Give a three-figure compass direction.)
- (b) What is the approximate angle of dip?
- (c) Write down the attitude of the bedding as a single expression of the form: Dip direction/angle of dip.



Name:

Answers:

(a)

(b)

(c)

Name:

*Uniformly Dipping Beds*

PROBLEM 2.5

The map shows structure contours for the basal contact of a unit of mudstone.

What is the strike of the contact?

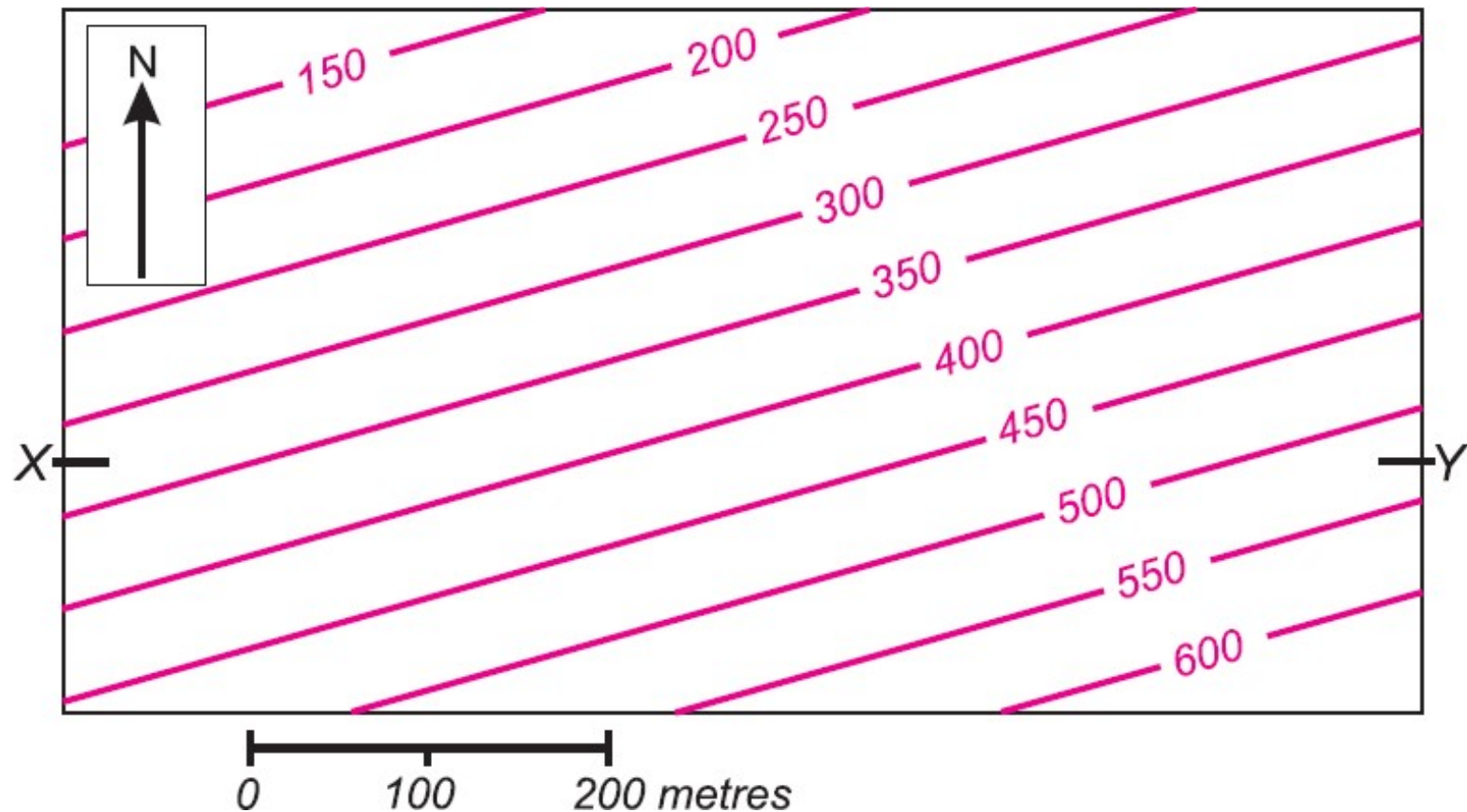
What is the dip direction of the contact?

What is the angle of dip of the contact?

Construct an east-west true scale cross-section (equal vertical and horizontal scales) along the X-Y to show the contact.

Explain why the angle of dip seen in the drawn section differs from the dip calculated above.

Use a formula to calculate the dip observed in the section and to check the accuracy of the cross-section.



Strike:

Dip Direction:

Angle of Dip:

Name:

*Uniformly Dipping Beds*

PROBLEM 2.5

The map shows structure contours for the basal contact of a unit of mudstone.

What is the strike of the contact?

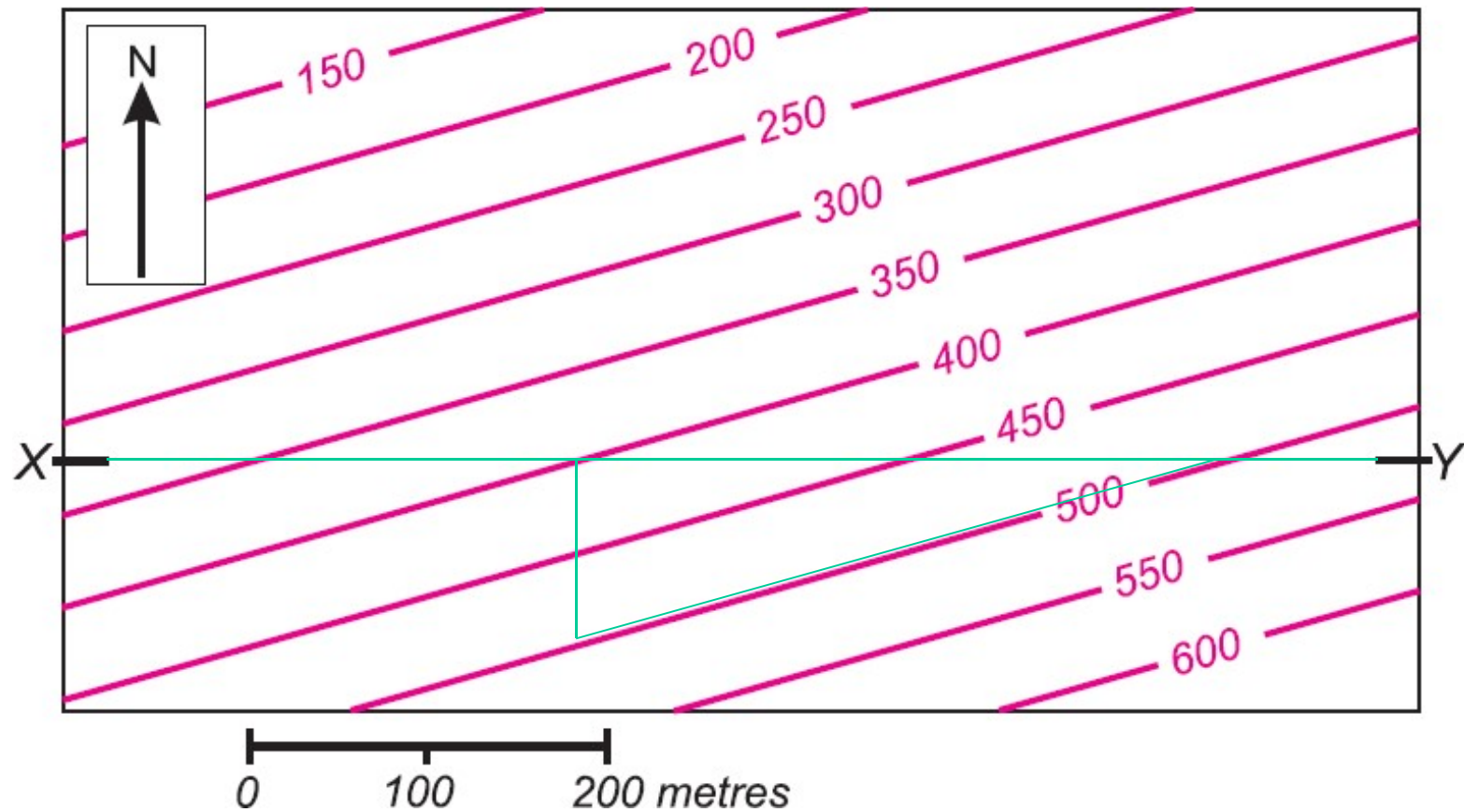
What is the dip direction of the contact?

What is the angle of dip of the contact?

Construct an east-west true scale cross-section (equal vertical and horizontal scales) along the X-Y to show the contact.

Explain why the angle of dip seen in the drawn section differs from the dip calculated above.

Use a formula to calculate the dip observed in the section and to check the accuracy of the cross-section.



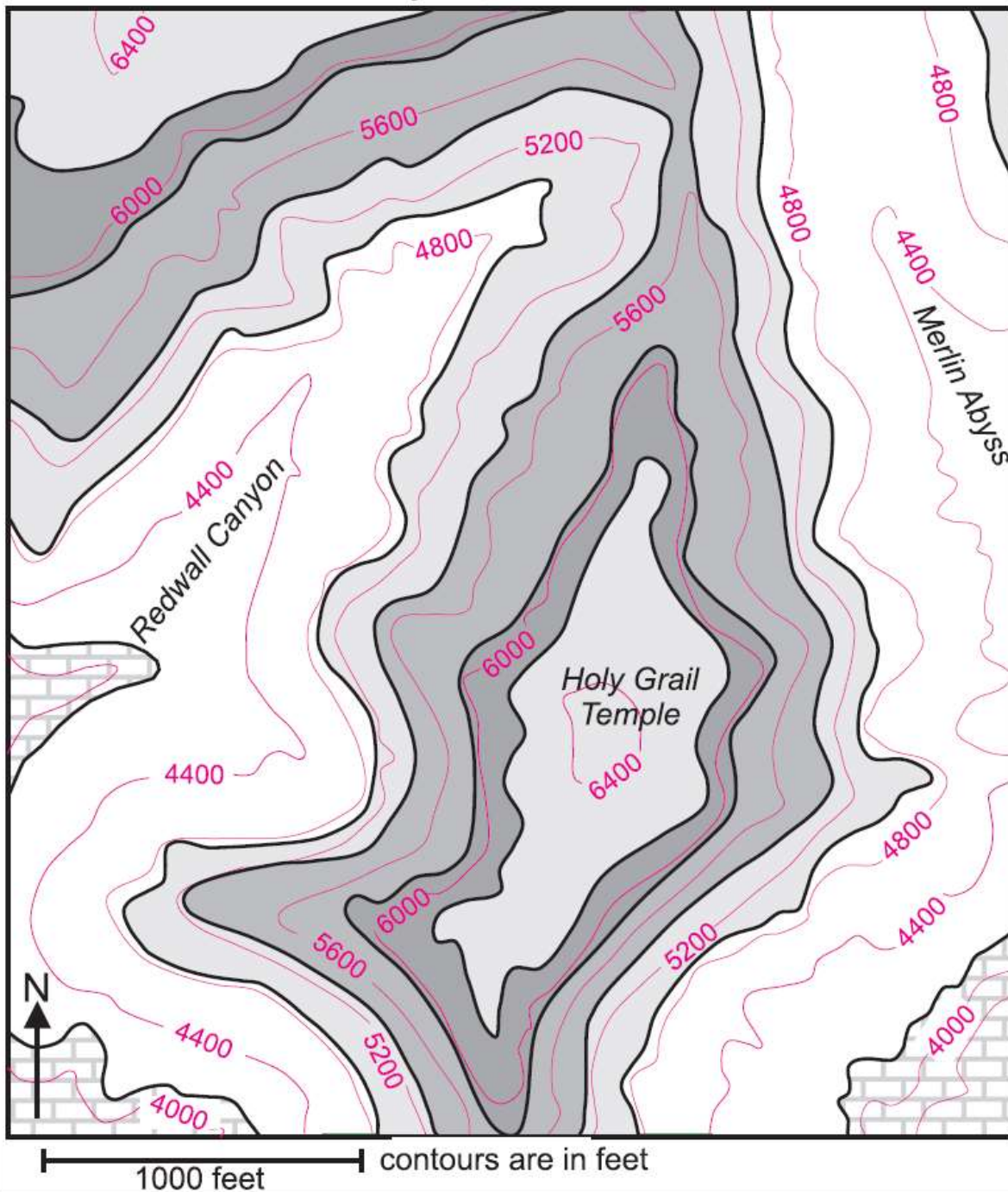
Strike:

Dip Direction:

Angle of Dip:



## Part of the Grand Canyon, Arizona



Rider Structural Geology 310 2012 GCHERMAN

Name:

### PROBLEM 2.7

This is a geological map of part of the Grand Canyon, Arizona, USA. Examine the relationship between geological boundaries and topographic contours and deduce the dip of the rocks.

Answer:

*Uniformly Dipping Beds*

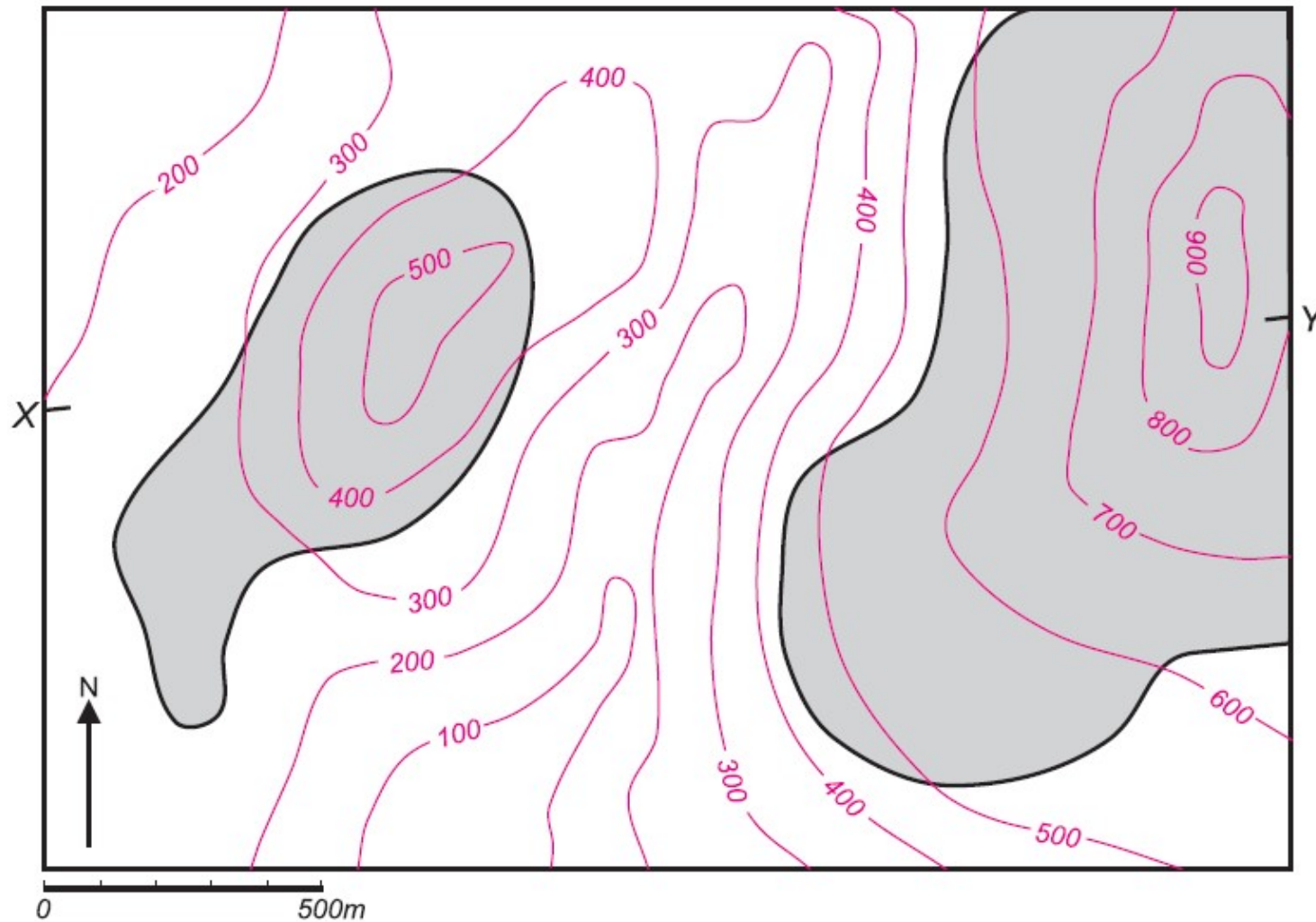
4

From /Rider/Lisle Geol Struct and Maps.pdf

## PROBLEM 2.8

The geological map shows the distribution of two formations and their contact. Draw structure contours for the

contact and use these to construct a cross section along the line X to Y.

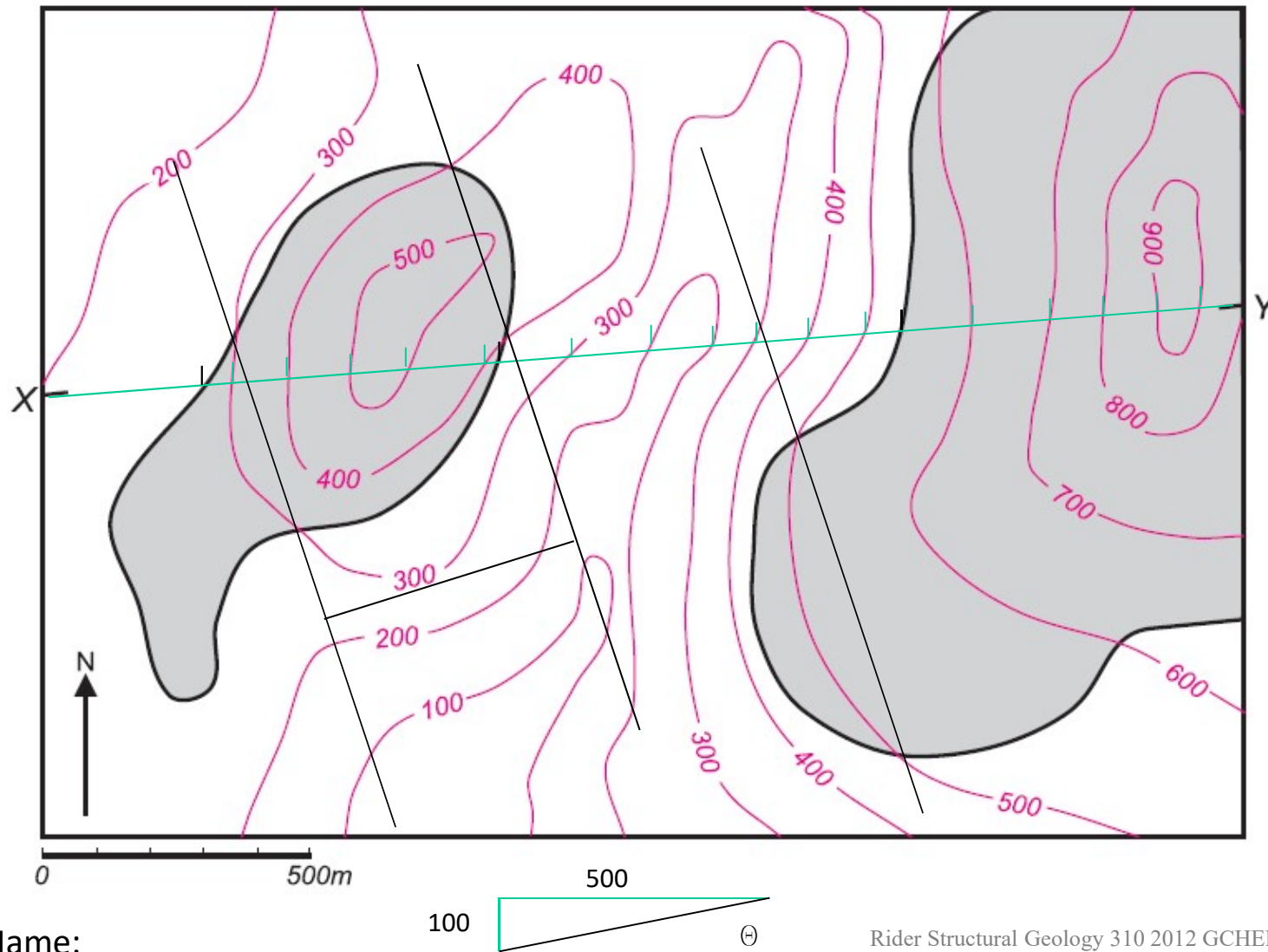


Name:

## PROBLEM 2.8

The geological map shows the distribution of two formations and their contact. Draw structure contours for the

contact and use these to construct a cross section along the line X to Y.

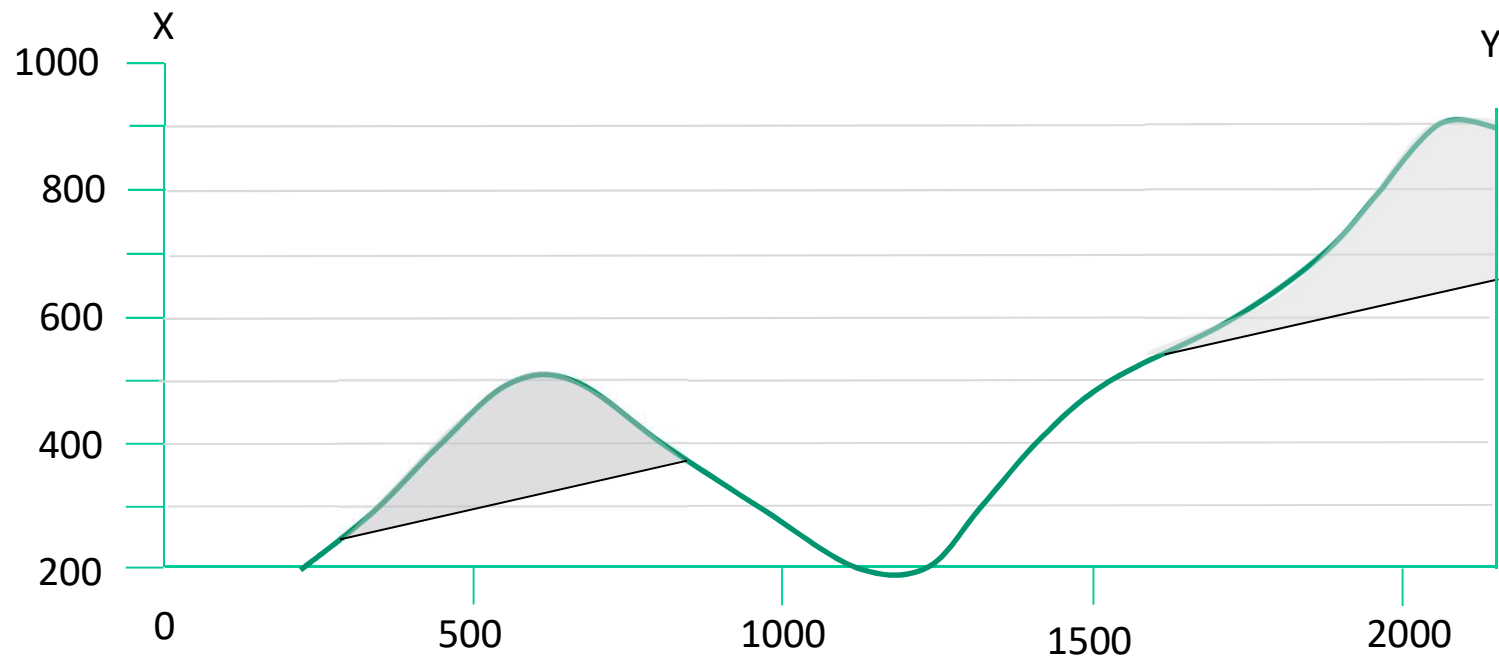


Name:

## PROBLEM 2.8

The geological map shows the distribution of two formations and their contact. Draw structure contours for the

contact and use these to construct a cross section along the line X to Y.



Name: