PROJECTIONS

STUDENT BOOK	Chapter 11, page 344
TOOLBOX	Pages 70–72

GOAL

Observe an object and draw it using various projections.

OBSERVATION CRITERIA

1. Name three types of projections that may be used to represent an object.

2. What is a perspective drawing? Name two types of projections by which it is possible to obtain a perspective drawing.

3. What is an orthogonal projection? Give two examples of orthogonal projections.

4. What are the three usual views in a multiview projection?

5. What projection shows one or several edges in the foreground?

6. An oblique projection permits the presentation of two dimensions in which measurements and angles are shown precisely. What are these dimensions?

7. What are the advantages of combining a multiview projection with an isometric projection?

Name: _____ Group: _____ Date: _____

MATERIALS

- drawing board
- T-square
- 30°/60° set square
- 45° set square
- ruler
- masking tape
- pencil
- eraser
- scissors

PROCEDURE

1. Cut out the figure illustrated on the next page ("Rectangular prism").
2. Assemble and paste together the tabs of this figure to create a prism.
3. Observe the prism obtained, considering the side marked "A" as the front view.
4. Create the following projections on observation sheets A, B and C:
   A: Multiview projection
   B: Isometric projection
   C: Oblique projection

OBSERVATIONS

See pages 15–17.

REFLECTING ON YOUR OBSERVATIONS

1. What projection was easiest for you to create? Explain why.

_____

_____

2. What projection was most difficult for you to create? Explain why.

_____

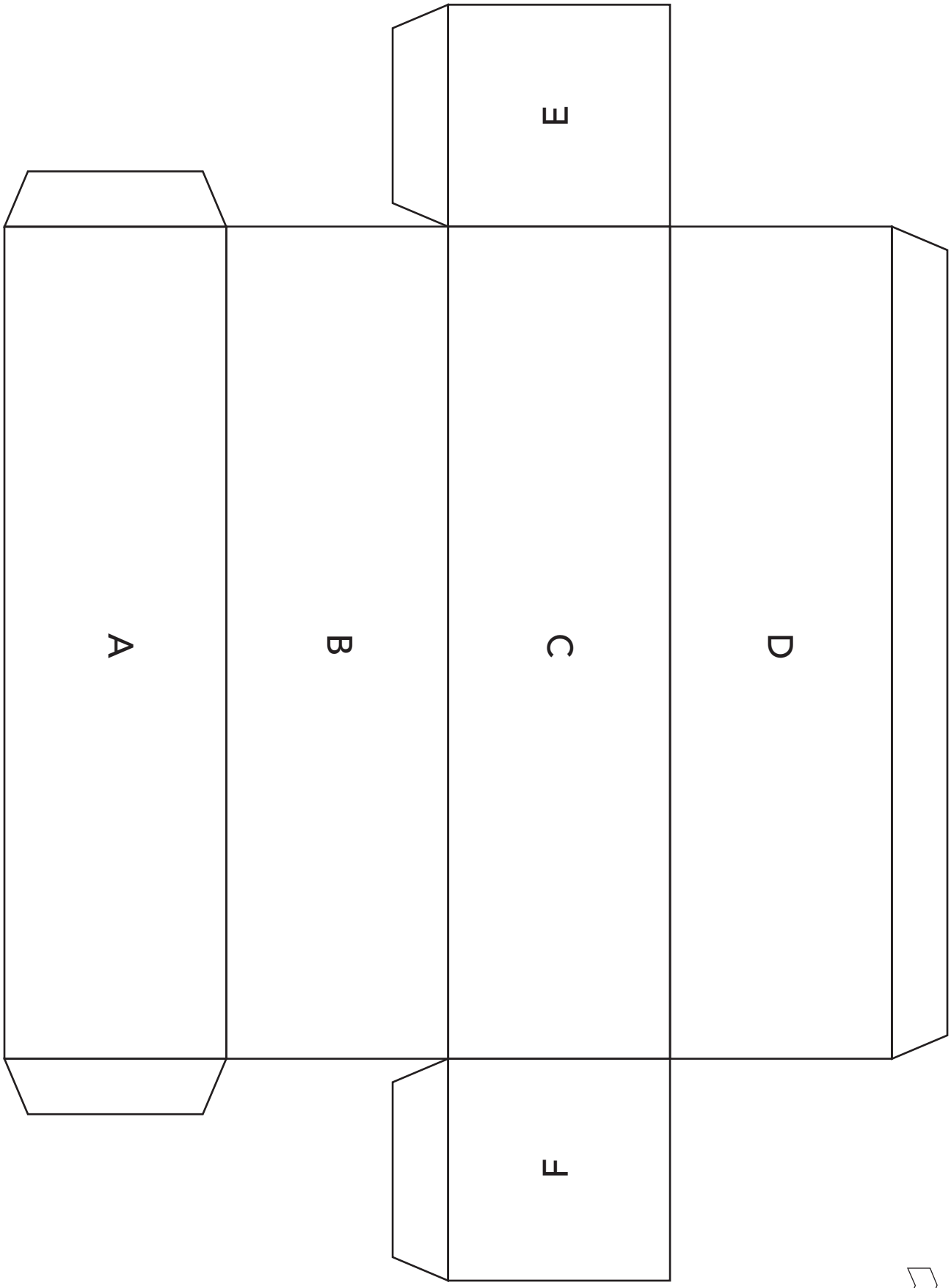
_____

3. In the table below, give at least one advantage and one disadvantage for each type of projection.

Projection	Multiview	Isometric	Oblique
ADVANTAGE	_____ _____ _____ _____	_____ _____ _____ _____	_____ _____ _____ _____
DISADVANTAGE	_____ _____ _____ _____	_____ _____ _____ _____	_____ _____ _____ _____

Name: _____ Group: _____ Date: _____

Rectangular prism (to cut out and assemble)



OBSERVATIONS **A:** ***Multiview projection***

View: _____

View: _____

View: _____

NAME:	DATE:
TITLE: MULTIVIEW PROJECTION OF A RECTANGULAR PRISM	**SCALE:** 1:1

OBSERVATIONS B: *Isometric projection*

NAME:

DATE:

TITLE: ISOMETRIC PROJECTION OF A RECTANGULAR PRISM

SCALE: 1 graduation = 10 mm

Observatory / Guide
11071-B

OBSERVATIONS C: *Oblique projection*

NAME:	DATE:
TITLE: OBLIQUE PROJECTION OF A RECTANGULAR PRISM	**SCALE:** 1 graduation= 5 mm (for only length ans height)