Activity 11 — Midsegment of a Trapezoid

Objectives

This activity is designed to help students discover the following theorem:

✔ *Midsegment Theorem for Trapezoids: The midsegment of a trapezoid is parallel to each of its bases and its length is half the sum of the lengths of its bases.*

Vocabulary

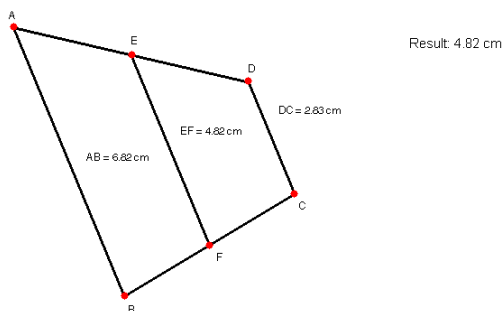|	
segment	endpoint
parallel	trapezoid
slope	midsegment
midpoint	

Prerequisites

Students must understand how to:

✔ *Create, measure, and label a segment.*

✔ *Create a parallel line.*

Answers

12. Yes.

14. Yes.

16. Yes.

17. The midsegment is parallel to the two parallel sides of a trapezoid.

18. Measures will vary.

28. The length of the midsegment is half the length of the two parallel sides of a trapezoid.

Result: 4.82 cm

AB = 6.82 cm · EF = 4.82 cm · DC = 2.83 cm

	AB =	DC =	EF =	AB =	AB =
1	6.91	2.83	4.87	-	-
2	4.97	2.83	3.90	4.97	-
3	6.82	2.83	4.82	6.82	6.82
4					
5					

Figure A.8