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Student Guide

How Close Is Close Enough (SG pp. 337–338) Questions 1–9

- I. A.* 10 sq cm
 - **B.** 10 is the middle number.
- 2.* Estimates of 9, 10, and 11sq cm that cluster around the median are close.
- **3. A.*** 42 sq cm
 - **B.** 42 is the number in the middle
- **4.*** Estimates of 42 and 45 sq cm are close.
- **5.*** 3 sq cm
- **6.*** 3 sq cm
- 7.* Possible response: Arti's is better since the area she counted was larger. With smaller areas, the range of acceptable estimates is smaller.
- **8. A.** 32 sq cm
 - **B.** 10 sq cm
 - **C.** 7 sq cm
 - **D.** Answers will vary. Possible response: Close to the median of 32 sq cm from 31 to 35 sq cm.
 - **E.** Answers will vary. It is reasonable to say the estimates of 25 and 42 are not close enough.
- **9. A.*** 88 sq cm
 - **B.*** 75 sq cm or 75 and 97 sq cm
 - C.* Possible response: I decided to throw out 75 sq cm, so the median of the remaining six pieces of data is 89 sq cm. I decided to throw out 75 sq cm and 97 sq cm, so the median of the remaining five pieces is 88 sq cm. Taking out the highest and lowest estimates does not significantly change the median.

The members in Felicia and Roberto's group compared their estimates. They each recorded their own measurement in a data table. Five other students measured a different shape, Shape B. Here are the estimates for Shape A and Shape B.

Shape A Name Estimate Lin 10 sq cm Felicia 9 sq cm Shannon 7 sq cm Roberto 16 sq cm Irma 11 sq cm

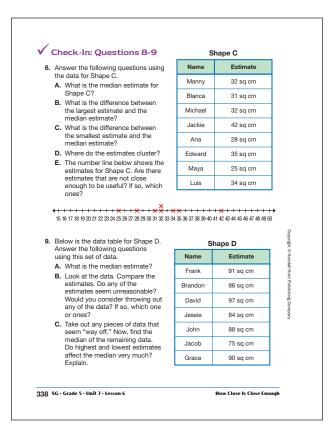
Shape B	
Name	Estimate
Arti	45 sq cm
Romesh	42 sq cm
Lee Yah	42 sq cm
Nicholas	49 sq cm
Nila	36 sq cm

- 1. A. What is the median estimate for Shape A?
 - B. How do you know?
- 2. Which estimates for the area of Shape A are "close enough"?
- 3. A. What is the median estimate for Shape B?
 B. How do you know?
- 4. Which estimates for the area of Shape B are "close enough"?
- 5. What is the difference between Shannon's estimate and the median estimate for Shape A?
- What is the difference between Arti's estimate and the median estimate for Shape B ?
- 7. Is Shannon's estimate for Shape A better, worse, or the same as Arti's estimate for Shape B? Explain.

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^{*}Answers and/or discussion are included in the lesson.