

Reasoning and Problem Solving

Estimate Answers

Developing

1a. Various answers, for example: B is the odd one out when rounded to the nearest 10 as it totals 980, A and C total 880; B is also the odd one out when rounded to the nearest 100 as it totals 1,000, A and C total 900.

2a. Evie because $308 + 188$ when rounded to the nearest 10 is $310 + 190 = 500$ and when round to the nearest 100 is $300 + 200 = 500$

3a. 120

Expected

4a. Various answers, for example: C is the odd one out when rounded to the nearest 1,000 as it totals 7,000, A and B total 8,000; C is also the odd one out when rounded to the nearest 10 as it totals 7,830, A and B total 7,820

5a. Jenny because $3,678 + 1,982$ when rounded to the nearest 100 is $3,700 + 2,000 = 5,700$

6a. 3,140 (rounded to the nearest 10);
3,200 (when rounded to the nearest 100)

Greater Depth

7a. Various answers, for example: B is the odd one out when rounded to the nearest 1,000 as it totals 8,000, A and C total 9,000; A is the odd one out when rounded to the nearest 100 as it totals 8,500, B and C total 8,400; C is the odd one out when rounded to the nearest 10 as it totals 8,470, A and B total 8,460.

8a. Charlie because $5,800 + 1,234$ when rounded to the nearest 1,000 is $6,000 + 1,000 = 7,000$

9a. 3,000 (nearest 1,000); 3,400 (nearest 100)

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1b. C is the odd one out when rounded to the nearest 10 as it totals 660, A and C total 650.

2b. Heena because $253 + 346$ when rounded to the nearest 10 is $250 + 350 = 600$ and when rounded to the nearest 100 is $300 + 300 = 600$

3b. 340

Expected

4b. Various answers, for example: C is the odd one out when rounded to the nearest 1,000 as it totals 4,000, A and B total 3,000; C is also the odd one out when rounded to the nearest 100 as it totals 3,300, A and B total 3,400; B is the odd one out when rounded to the nearest 10 as it totals 3,370, A and B total 3,350.

5b. Adam because $9,354 - 5,877$ when rounded to the nearest 100 is $9,400 - 5,900 = 3,500$

6b. 3,220 (when rounded to the nearest 10); 3,200 (when rounded to the nearest 100)

Greater Depth

7b. Various answers, for example: A is the odd one out when rounded to the nearest 1,000 as it totals 7,000, B and C total 6,000; C is the odd one out when rounded to the nearest 100 as it totals 6,600, A and B total 6,500; C is also the odd one out when rounded to the nearest 10 as it totals 6,640, A and B total 6,530.

8b. James because $4,809 + 3,276$ when rounded to the nearest 1,000 is $5,000 + 3,000 = 8,000$

9b. 2,000 (nearest 1,000); 2,300 (nearest 100)