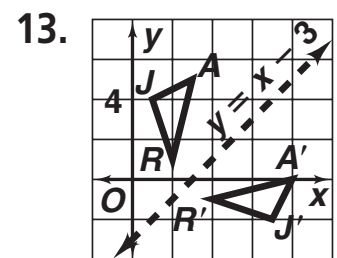
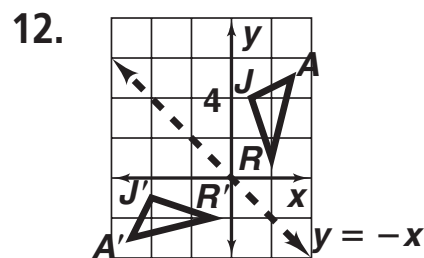
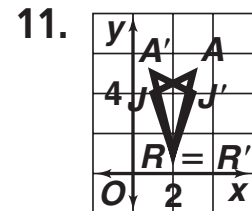
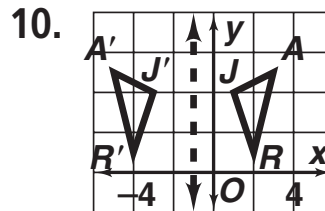
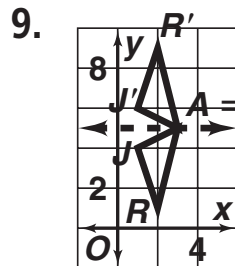
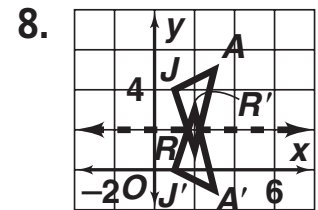
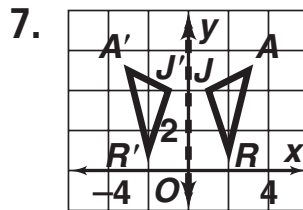
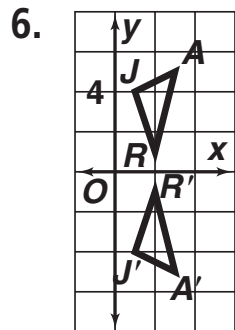


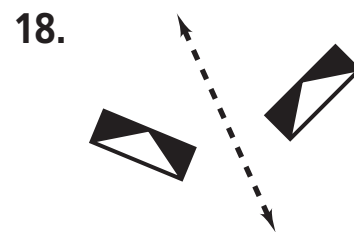
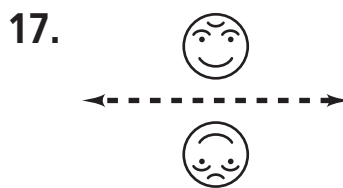
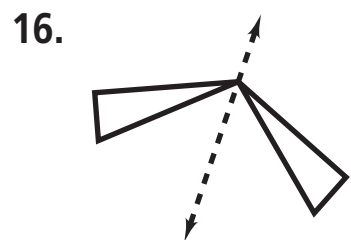
Answers for Lesson 9-2, pp. 480–482 Exercises

1. $(-1, 2)$
2. $(-1, -4)$
3. $(-3, 2)$
4. $(-3, 2)$
5. $(-5, -3)$

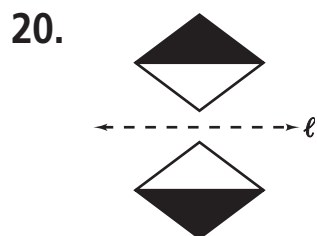


14. Reflect the point for Balance Rock over the line for Summit Trail. Connect this point and Overlook. The trails will connect at the intersection of the segment and Summit Trail.
15. Reflect point D over the mirrored wall. Connect this point and C . The intersection of the segment and the wall is the point to focus the camera.

Answers for Lesson 9-2, pp. 480–482 Exercises (cont.)



19. A



22. S-Isomer

23. Answers may vary. Sample: scissors, a baseball glove, a guitar

24. (x, y) has image $(x, -y)$. 25. (x, y) has image $(-x, y)$.

26. (x, y) has image (y, x) .

27. a. Leonardo da Vinci was left-handed.

b. Answers may vary. Sample: His writing hand would not cover what was written so far.

28. $(0, -6)$

29. $(4, 0)$

30. $(0, 0)$

31. $(-4, 6)$

32. $(-4, 6)$

33. $(0, -4)$

34. $(2a, 2b)$

35. $(0, 2a)$

36. $(2b, 0)$

37. $\overline{AB} \cong \overline{A'B'}$; $\overline{BC} \cong \overline{B'C'}$; $\overline{AC} \cong \overline{A'C'}$; $A \rightarrow A'$; $B \rightarrow B'$; $C \rightarrow C'$; $\angle A \cong \angle A'$; $\angle B \cong \angle B'$; $\angle C \cong \angle C'$

38–45. Answers may vary. Samples are given.

38. yes; reflect a \triangle across any side and then reflect the image across the \perp bisector of that side.
39. yes; follow Exercise 38 steps, first using one side of the triangle and again using a second side.
40. yes; reflect a scalene \triangle across any side, a non-rt. isosc. \triangle across either leg, or a non-isosc. rt. \triangle across its hyp.
41. yes; reflect an isosc. \triangle across its base.
42. yes; follow Exercise 38 using a rt. \triangle and the hyp. as the first reflection line.
43. yes; reflect an isosc. rt. \triangle across its hyp.
44. The slope of \overleftrightarrow{AB} is $\frac{a-b}{b-a} = \frac{a-b}{-1(a-b)} = -1$.
 The slope of $y = x$ is 1. Since $(1)(-1) = -1$, the lines are \perp .
 The midpoint of $\overline{AB} = \left(\frac{b+a}{2}, \frac{a+b}{2}\right)$, which is a pt. on $y = x$.
45. for $b \neq d$, $y = \left(\frac{a-c}{d-b}\right)x - \frac{a^2 + b^2 - c^2 - d^2}{2(d-b)}$; for $b = d$,
 $x = \frac{a+c}{2}$
46. a. (4, 2)
 b. (-2, -4)
 c. (-4, -2)
 d. (2, 4)
 e. They are the same point.