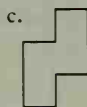


inf. many planes that contain b ; plane symm. about the single plane that contains a and is \perp to b ; inf. many rot. symmetries about b ; 180° rot. symm. about the inf. many lines \perp to b and containing the int. of the axes.

21. a. non-isos. trap. b. isos. trap. c. not poss. 23. a. reg. octagon b. c.



Self-Test 2, Page 615

1. A 2. A 3. B 4. P 5. y-axis 6. No 7. P 8. T 9. translation 10. a. $D_{O, \frac{1}{2}}$
b. $R_{O, 70}$ c. R_y d. $S^{-1}: (x, y) \rightarrow (x - 2, y + 3)$

Extra, Pages 616–617

1. Let t be the \perp bis. of the base. 3.

\circ	I	R_t
I	I	R_t
R_t	R_t	I

 5. a. 2 b. 4
9. a. No; there is no identity. b. Yes; the rot. symmetries c. I, H_O

Chapter Review, Page 619

1. \cong 3. a. $(6, 1), \left(\frac{3}{2}, 5\right)$ b. No 5. $y = -2x + 1$ 7. $(12, 2)$ 9. a, c 11. $(1, 3)$
13. $(x + 1, y - 6)$ 15. I 17. No 19. Yes

Preparing for College Entrance Exams, Page 621

1. B 2. A 3. E 4. C 5. C 6. E 7. A 8. E 9. B 10. D

Cumulative Review, Pages 622–625

- True-False Exercises 1. T 3. T 5. F 7. F 9. F 11. T 13. F 15. T 17. T
19. F Multiple-Choice Exercises 1. d 3. b 5. d 7. c 9. c 11. b

- Completion Exercises 1. Add. Prop. = 3. 124 5. 33 7. $-\frac{3}{2}$ 9. $(-5, 2)$ 11. 22.5

13. $\frac{15}{17}$ 15. $27\sqrt{7}$ 17. $324\pi, 135\pi$ 19. $(4, -2)$ 21. 1:7 Always-Sometimes-Never

- Exercises 1. N 3. S 5. A 7. N 9. S 11. A 13. N 15. A 17. S

Construction Exercises 1. Const. 3 3. Const. 11 5. Const. $l \perp m$ at A ; on m mark off $AB = y$; from B , locate D on l such that $BD = x$; const. $n \perp l$ at D ; on n mark off $DC = y$; draw \overline{BC} . 7. On a line, mark off $AB = x, BC = x, CD = x$. Use Const. 14 to const. the geom. mean of AD and y . Proof Exercises 1. Key

steps of proof: 1. $\triangle OQP \sim \triangle OSR$ (AA \sim) 2. $\frac{PO}{RO} = \frac{PQ}{RS}$ (Corr. sides of $\sim \triangle$ are in prop.) 3. Key steps

of proof: 1. $OS = OR$; $OP = OQ$ (If 2 \triangle of a \triangle are \cong , sides opp. those \angle are \cong .) 2. $PR = QS$ (Add. Prop. =, Seg. Add. Post.) 3. $\triangle PSR \cong \triangle QRS$ (SAS) 5. Plan for proof: Let the coords. be $R(-2a, 0)$, $S(2a, 0)$, and $T(0, 2b)$. Midpts. of the segs. are $M(-a, b)$, $N(0, 0)$, and $P(a, b)$. Use the Dist. Form. to show that $NM = NP = \sqrt{a^2 + b^2}$.

Logic

Exercises, Pages 645–646

1. I like the city and you like the country. 3. You don't like the country.
5. I like the city or you don't like the country. 7. I don't like the city
or you don't like the country. 9. It is not true that "I like the city or
you like the country." 11. $p \vee q$ 13. $\sim(p \vee q)$ 15. $\sim(p \wedge q)$
17. Yes

19.	p	q	$\sim q$	$p \vee \sim q$
	T	T	F	T
	T	F	T	T
	F	T	F	F
	F	F	T	T