

Geometry Practice Answers // Chapter 1

Mr. Fitch // 2016-2017

p16 #8-10, 12, 14, 33-36, 40-45, 53, 55

8. Answers may vary. Sample:
 \overleftrightarrow{EB} , \overleftrightarrow{FB} , \overleftrightarrow{FE} , \overleftrightarrow{BE} , \overleftrightarrow{BF} , n

9. Answers may vary. Sample:
 \overleftrightarrow{EBG} , \overleftrightarrow{GFB} , etc. Plane C

10. E, B, and F

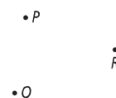
12. \overline{RS} or \overline{SR} , \overline{ST} or \overline{TS} , \overline{TW} or \overline{WT} , \overline{RT} or \overline{TR} , \overline{SW} or \overline{WS} ,
 \overline{RW} or \overline{WR}

14a. Answers may vary. Sample:
 \overline{TS} , \overline{TW} .

14b. Answers may vary. Sample:
 \overline{SR} , \overline{ST} .

33. 

34. not possible

35. 

36. not possible

5 points each

40. always

41. sometimes

42. always

43. sometimes

44. always

45. never

53. collinear

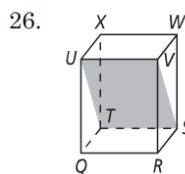
55. noncollinear

p16 #15, 16, 22, 26-29

15. \overleftrightarrow{RS}

16. \overleftrightarrow{WV}

22. plane VWX or plane VWS



27. coplanar

28. coplanar

29. noncoplanar

13 points each

p24 #8-14, 29, 37, 45 [43b]

10 points each

8. 2 14a. 7

9. 9 14b. $RS = 60$, $ST = 36$, $RT = 96$

10. 11

11. 6 29. -2 or 8

12. 24 37. The distance is 15 mi. The driver added the values instead of subtracting them.

13. 25 45. G

p24 #15-24, 39, 40

8 points each

15. no 20. 33

16. yes 21. 34

17. yes 22. 130

18. no 23. $\overline{XY} = 4$, $\overline{ZW} = 4$; congruent

19a. 9 24. $\overline{ZX} = 8$, $\overline{WY} = 8$; congruent

19b. $AY = 9$, $XY = 18$

39. $y = 15$; $AC = 24$, $DC = 12$

40. $ED = 10$, $DB = 10$, $EB = 20$

p31 #7-11, 18, 20, 22, 23, 33, 35-37, 41**7 points each**

- | | | |
|--|--|---------|
| 7. $\angle ABC$, $\angle CBA$, $\angle B$, and $\angle 1$ | 18. $\angle CBJ \cong \angle FHG$ (or $\angle DHG$) | 33. 180 |
| 8. $\angle JKM$, $\angle MKJ$, and $\angle 2$ | 20. 75 | 35. 30 |
| 9. 70, acute | 22. $m\angle ABC = 45$, $m\angle DBC = 34$ | 36. 100 |
| 10. 90, right | 23. $m\angle RQS = 43$, $m\angle TQS = 137$ | 37. 40 |
| 11. 110, obtuse | | 41. B |

p38 #7-12, 14, 15, 25, 32-36**5 points each**

- | | | |
|--------|--|--|
| 7. Yes | 11. $\angle AOB$ or $\angle DOC$ | 25. $m\angle EFG = 69$ and $m\angle GFH = 111$ |
| 8. No | 12. $m\angle AOE = 90$, so look for a right angle that also shares a vertex and a side and have no common interior points: $\angle EOC$ | 32. 35 and 55 |
| 9. No | 14. Answers may vary. Sample: $\angle DOC$ | 33. 90 |
| 10. No | 15. Answers may vary. Sample: $\angle AOB$ and $\angle DOC$ | 34. 25 |
| | | 35. 155 |
| | | 36. 115 |

p495 #8-12**20 points each**

8. 25
9. 34
10. 20
11. 97
12. 17

Worksheet 1-7**10 points each**

- | | | |
|----------------------------------|-----------------------------------|----------------------------|
| 1. $x = 37$ | 2. $x = 11.4$ | 3. $x = 10$ |
| 4. $m = 1$ or $1/1$; $AB = 5.7$ | 5. $m = -3/4$; $AB = 10.0$ | 6. $m = -2/7$; $AB = 7.3$ |
| 7. $m = -3/7$; $AB = 7.6$ | 8. $m = 3/2$; $AB = 7.2$ | |
| 9. $m = 9/5$; $AB = 10.3$ | 10. $m = 1$ or $1/1$; $AB = 7.1$ | |

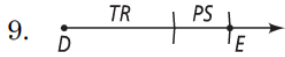
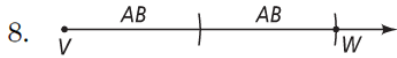
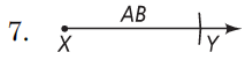
p54 #6, 7, 10, 11, 22-25, 31, 34, 36, 37, 48-50 [45]**6 points each**

- | | | | |
|-----------|---------|----------------|----------------|
| 6. 3 | 22. 6 | 34. 9.4 | 48a. 19.2 |
| 7. -1.5 | 23. 18 | 36a. 5 | 48b. (-1.5,0) |
| 10. (4,2) | 24. 8 | 36b. (4.5,4) | 49a. 10.8 |
| | 25. 9 | 37a. 5.8 | 49b. (3,-4) |
| 11. (3,1) | 31. 8.2 | 37b. (1.5,0.5) | 50a. 5.4 |
| | | | 50b. (-1, 0.5) |

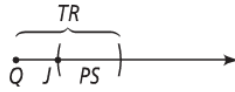
p64 #7, 9, 12, 13, 17, 19, 21, 24, 26, 28, 30-32, 44 [55]**6 points each**

- | | | | |
|-----------------------|--|------------------------------------|--|
| 7. 22 in. | 17. 38 units | 26. $\frac{1}{100}\pi \text{ m}^2$ | 31. 310 m ² . |
| 9. 38 ft | 19. $3\frac{1}{3} \text{ yd}^2$ or 4320 in. ² | 28. 54.1 m ² | 32. 80 in. ² . |
| 12. 3.7π in. | 21. 0.8 m ² or 8000 cm ² | 30. 452.2 in. ² | 44. about 9341.5 mm ²
9346.2 using Pi button |
| 13. $\frac{\pi}{2}$ m | 24. $\frac{9}{64}\pi \text{ in.}^2$ | | |

4. straightedge and compass



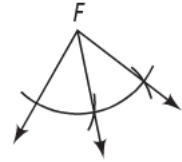
10.



11.



12.



p85 #6-14, 20-23, 27, 28, 31-36

4 points each

6. Each term is twice the previous term, so the next two terms are 80 and 160.

7. The next two terms are 36 and 49.

8. The pattern is to add $-2, +3, -4, +5, \dots$. The next two terms are $3 - 6 = -3$ and $-3 + 7 = 4$.

9. The next two terms are $\frac{1}{16}$ and $\frac{1}{32}$.

10. The next two terms are $\frac{1}{5}$ and $\frac{1}{6}$.

11. Each term is 3 less than the previous term, so the next two terms are 3 and 0.

12. Each term is the first letter of the counting numbers: *one, two, three, \dots*, so the ninth and tenth terms are N and T.

13. Each term is the first letter of the months *January, February, March, \dots*, so the sixth and seventh terms are J and J.

14. The pattern is multiply by 2, then multiply by 3, then multiply by 4, then multiply by 5, \dots . The next two terms are $120 \times 6 = 720$ and $720 \times 7 = 5040$.

20. The semicircles are being divided into equal pieces. Each term has one more division.



21. Because every third shape is blue, the fifteenth shape will be blue.

22. Because every fourth shape is a star, the twelfth shape will be a star.

23. Because every third shape is blue, the thirtieth shape will be blue.

27.

Addends	Sum
1 + 3	4
1 + 5	6
3 + 5	8
3 + 7	10

The sum of two odd numbers is even.

28.

Addends	Sum
2 + 1	3
2 + 3	5
4 + 3	7
4 + 5	9

The sum of an even and an odd number is odd.

31. 1 mile.

32. 75°F.

33. Answers may vary. Sample:

$\angle 1$ and $\angle 2$ could both be right angles.

34. Answers may vary. Sample:

$\triangle ABC$ could be a right triangle with right $\angle B$.

35. Answers may vary. Sample:

$-2 + -3 = -5$ and -5 is less than both -2 and -3 .

36. Answers may vary. Sample:

$\frac{1}{4} \cdot \frac{1}{2} = \frac{1}{8}$, and since $\frac{1}{8} < \frac{1}{2}$ and $\frac{1}{8} < \frac{1}{4}$, the statement is false.

