

Geometry Practice Answers // Mr. Fitch // 2017-2018

p495 #8-12

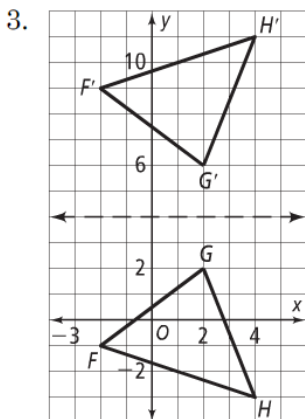
20 points each

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

p555 #1-3

33 points each

1. $H'(-4, -3)$
2. $G'(4, 2)$



p495 #1, 4-6

25 points each

1. 37
4. $x = 4\sqrt{3}$
5. The three numbers a , b , and c must be whole numbers that satisfy $a^2 + b^2 = c^2$.
6. The longest side is 34 so the student should have tested $16^2 + 30^2 = 34^2$.

p495 #10, 11, 13-15, 18-20, 25-27, 39, 42 [33]

7 points each

- | | |
|---------------------------------|--|
| 10. 20 | 25. No; $8^2 + 24^2 \neq 25^2$ |
| 11. 97 | 26. Yes; $33^2 + 56^2 = 65^2$ |
| 13. no; $4^2 + 5^2 \neq 6^2$. | 27. acute |
| 14. yes; $10^2 + 24^2 = 26^2$. | 39. 29 |
| 15. yes; $15^2 + 20^2 = 25^2$. | 42. <input type="text" value="35"/> $b = 35$ |
| 18. $3\sqrt{11}$ | 33. <input type="text" value="4.2 in."/> |
| 19. $\sqrt{105}$ | |
| 20. $3\sqrt{2}$ | |

p503 #1, 3

50 points each

1. $7\sqrt{2}$
3. $4\sqrt{2}$

p503 #6-12, 14, 27, 28; p555 #1-3

6. Answers may vary. Sample:

The triangle is an isosceles triangle. The length of each leg is the same. Use the Pythagorean Theorem to find the hypotenuse:

$6, 6\sqrt{2}.$

7. $x = 8, y = 8\sqrt{2}.$

12. $\sqrt{10}$

8. $x = \sqrt{2}, y = 2.$

14. 25.5 ft

9. $y = 60\sqrt{2}.$

27. $a = 3, b = 7$

10. $x = 15, y = 15$

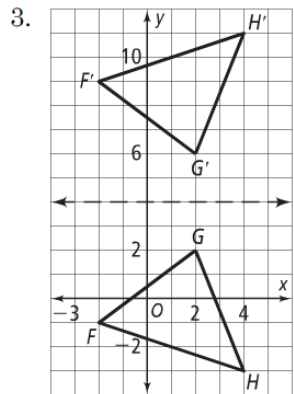
28. $a = 14, b = 6\sqrt{2}$

11. $5\sqrt{2}$

1. $H'(-4, -3)$

2. $G'(4, 2)$

7 points each



p503 #2, 4

2. 3

4. $6\sqrt{3}$

50 points each

p504 #15-21, 23, 24, 31, 34, 35 [30]

15. $x = 20, y = 20\sqrt{3}.$

19. $x = 4, y = 2$

16. $x = \sqrt{3}, y = 3$

20. $x = 9, y = 18$

17. $x = 5, y = 5\sqrt{3}.$

21. 50 ft

18. $x = 24, y = 12\sqrt{3}.$

23. $a = 7, b = 14, c = 7, d = 7\sqrt{3}$

24. $a = 6, b = 6\sqrt{2}, c = 2\sqrt{3}, d = 6$

6 points each

31. Answer may vary.

34. C

35. I.

30a.	8.5 m
30b.	3.1 m

p510 #1-6

1. $\frac{8}{10}$ or $\frac{4}{5}$

4. $\frac{6}{10}$ or $\frac{3}{5}$

2. $\frac{6}{10}$ or $\frac{3}{5}$

5. $\frac{8}{10}$ or $\frac{4}{5}$

3. $\frac{8}{6}$ or $\frac{4}{3}$

6. $\frac{6}{8}$ or $\frac{3}{4}$

16 points each

p510 #11-17, 21, 37, 57

11. $\frac{7}{25}, \frac{24}{25}, \frac{7}{24}$

15. 8.3

12. $\frac{4\sqrt{2}}{9}, \frac{7}{9}, \frac{4\sqrt{2}}{7}$

16. 14.4

17. 17.0

13. $\frac{\sqrt{3}}{2}, \frac{1}{2}, \sqrt{3}$

21. 1085 ft

14. 11.5

10 points each

37a. The sine and cosine ratios of complementary angles are equal.

37b. $\angle B; \angle A$

37c. Answers may vary. Sample:
The cosine is the complement's sine.

57. The length of the shorter leg is 4. The length of the longer leg is $4\sqrt{3}.$

p510 #18, 19, 22-27, 33, 34, 54; p518 #1-6**5 points each**

18. 106.5
 19. 21.4
 22. 21
 23. 58
 24. 46
 25. 59
26. 24
 27. 66
 33. $w = 3, x \approx 41$
 34. $w \approx 6.7, x \approx 8.1$
 54. A

1. \angle of elevation from C to A
 2. \angle of depression from A to C
 3. \angle of elevation from A to D .
 4. \angle of elevation from A to B
 5. \angle of depression from B to A
 6. $\angle 1 \cong \angle 2$ and $\angle 4 \cong \angle 5$ (alt. int. \angle s)

p518 #7-10, 17-22 [34]**10 points each**

7. Answers may vary.
 8. Answers may vary.
 9. \angle of elevation from sub to boat
 10. \angle of depression from boat to sub
 17. 34.2 ft
 18. 502.4 m

19. 986 m
 20. 263.3 yd
 21. 0.6 km
 22. 769 ft
 34. 27.7 ft

Interactive Achievement Practice

1. A
 2. D
 3. D
 4. A
 5. C
 6. 60° $3\sqrt{3}$ $\frac{1}{2}$ 3 $\sqrt{3}$
 7. $\frac{17, \sqrt{613}}{25, \sqrt{301}}$
 $\frac{8, 2\sqrt{65}}{25, \sqrt{301}}$

8. D
 9. C
 10. D
 11. B
 12. A
 13. A
 14. C
 15. C