

GRADE 11 ESSENTIAL GEOMETRY WORKBOOK ANSWERS

No units are given in this answer key for purposes of brevity. But make sure *your* answers **include the units!** Distance and perimeter are measured in units, area in square units [units²], and volume in cubic units [units³].

If you find your answer is different from these here then there is a very slight chance that mine is the incorrect answer.

Lesson 1: Perimeter

Example 2: 42 Example 3: 20

1a. 23.5 1b. 40 1c. 29.6 2a. 34 2b. 21.8 2c. 42
3a. 32 3b. 41.6 3c. 42

Lesson 2: Circumference

Example 2: 37.68

1a. 43.98 1b. 17.59 1c. 32.99
2a. 18.85 2b. 131.95
3a. 47.12 3b. 42.10
4a. 21.36 4b. 301.59
5a. 254.4 5b. 232.48
6a. 84.82 6b. 60.32
7a. 13.20 7b. 25.13

Lesson 3: Area Rectangle

Example 2: 9

1a. 91 1b. 72.25 1c. 61.75

2. 891 3. 18.55 4. 7.6 5. 77.89
6. 70.84 7. 82.8 8. 12.96 9. 62.7

Lesson 4: Area Triangle

Example 2: 31.5

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|---------|-----------|----------|----------|--|
| 1a. 14 | 1b. 13.13 | 1c. 20 | | |
| 2. 67.5 | 3. 11.38 | 4. 24.05 | 5. 40.25 | |
| 6. 2849 | 7. 1487.5 | 8. 70.5 | 9. 31.35 | |

Lesson 5: Area Circle

Example 2: 200.96

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|------------|------------|-----------|------------|--|
| 1a. 78.54 | 1b. 16.62 | 1c. 28.27 | | |
| 2a. 254.47 | 2b. 615.75 | | | |
| 3a. 615.75 | 3b. 1385.4 | 4a. 38.49 | 4b. 4071.5 | |
| 5a. 9852 | 5b. 12469 | 6a. 88.25 | 6b. 5541.8 | |
| 7a. 6361.7 | 7b. 2.54 | | | |

PROBLEM SOLVING

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|----------|-----------|-----------|--------|--|
| 1. 380 | 2. 7000 | 3. 12 | 4. 78 | |
| 5. 87.96 | 6. 615.75 | 7. 11,309 | 8. 377 | |

Lesson 6: Area Parallelogram

Example 2: 80.91

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|----------|-----------|------------|---------|--|
| 1a. 22.5 | 1b. 99.28 | 1c. 106.25 | | |
| 2. 1728 | 3. 37.5 | 4. 18.24 | 5. 43.2 | |
| 6. 62.98 | 7. 65.7 | 8. 198.4 | | |

Lesson 7: Surface Area Rectangular Prism

- | | | | | |
|---------|---------|-----------|-----------|--|
| 1a. 488 | 1b. 262 | 1c. 860 | | |
| 2. 670 | 3. 4216 | 4. 586.18 | 5. 372.78 | |

Lesson 8: Surface Area Triangular Prism

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|---------|-------------|---------|--|
| 1a. 554 | 1b. 1840.27 | 1c. 384 | |
| 2a. 495 | 2b. 3374 | 2c. 217 | |

Lesson 9: Surface Area Cylinder

- 1a. 94.25 1b. 1055 1c. 596
 2. 534.07 3. 3449.5 4. 1569.2 5. 9.42
 6. 41,293 7. 1,275.1

Lesson 10: Volume Rectangular Prism

Example 2: 140

- 1a. 84 1b. 270 1c. 68.92
 2a. 161.28 2b. 55.13 2c. 180
 3. 336 4. 39.44 5. 42.88 6. 14,112 7. 104.03

Lesson 11: Volume Triangular Prism

- 1a. 975 1b. 82.5 1c. 1404
 2a. 396 2b. 9135 2c. 2660
 3a. 4.375 3b. 5.780 3c. 253.58

Lesson 12: Volume Cylinder

Example 2: 452.2

- 1a. 1847.26 1b. 395.84 1c. 153.94
 2. 1206.4 3. 9160.9 4. 30.87 5. 4002.4
 6. 3562.6 7. 584.98.

PROBLEM SOLVING

1. 72 2. 192.42 3. 3000 4. 3318 5. B/318
 6. 264 7. 1570.80

Lesson 13: Volume Cone

- 1a. 821 1b. 11198 1c. 1149
 2. 1570.8 3. 87.97 4. 69002 5. 190.07 6. 9356.4
 7. 0.486

Lesson 14: Volume Pyramid

- 1a. 115.5 1b. 2.63 1c. 452.8
 2. 405 3. 320 4. 445.5 5. 0.064
 6. 173.25 7. 270.94

Lesson 15: Perimeter, Area, Volume Practice

1a. 46.8 1b. 65.97 2a. 64 2b. 91 2c. 54
 3a. 153.9 3b. 119.38 3c. 126
 4a. 343 4b. 105 5a. 84.67 5b. 1385

PROBLEM SOLVING

1. 64 & 5026.55 2. 1374 3. 251.33 4. 1,800,000
 5. no solution 6. 87.96 7. 3.33 Million

Practice Test

1a. 24 & 36 1b. 32 & 45.5 1c. 63 & 222
 2. 8 & 4 & 25.13 & 50.27 3. 10 & 5 & 31.4 & 78.54
 4a. 500 4b. 51.92 4c. 2073
 5a. 49.5 5b. 2121 5c. 1273.3