

7.1 Evaluate Radical Expressions

Answers

- | | | | | | |
|-------------|-------------|-------------|--------------|--------------|-------------|
| 1. 4 | 2. 5 | 3. 9 | 4. 11 | 5. 6 | 6. 13 |
| 7. 5 | 8. 4 | 9. 3 | 10. 12 | 11. 3 and 4 | 12. 3 and 4 |
| 13. 4 and 5 | 14. 4 and 5 | 15. 5 and 6 | 16. 9 and 10 | 17. 9 and 10 | |

7.2 Evaluate Radical Expressions and Fractional Powers

Answers

- | | | | | |
|-------|-------|-------|--------|--------|
| 1. 8 | 2. 4 | 3. 12 | 4. 9 | 5. 3 |
| 6. 5 | 7. 6 | 8. 10 | 9. 2 | 10. 4 |
| 11. 5 | 12. 6 | 13. 3 | 14. 11 | 15. 13 |

7.3 Solve Equations Involving Radicals

Answers

- | | | | | |
|-------|-------|-------|-------|-------|
| 1. 11 | 2. 12 | 3. 8 | 4. 13 | 5. 4 |
| 6. 4 | 7. 3 | 8. 12 | 9. 5 | 10. 5 |
| 11. 4 | 12. 5 | 13. 5 | 14. 6 | 15. 7 |

7.4 Classify Real Numbers

Answers

- | | |
|-----------------------------------|----------------------------|
| 1. Real, integer, rational | 2. Real, integer, rational |
| 3. Real, whole, integer, rational | 4. Real, rational |
| 5. Real, rational | 6. Real, integer, rational |
| 7. real, integer, rational | 8. Real, integer, rational |
| 9. Real, integer, whole, rational | 10. real, irrational |
| 11. True | 12. False |
| 13. True | 14. true |
| 15. False | 16. False |
| 17. False | 18. True |
| 19. True | 20. True |

7.5 Approximate Solutions to Equations Involving Irrational Numbers

Answers

- | | | | | |
|----------|----------|-----------|----------|-----------|
| 1. 9.42 | 2. 25.12 | 3. 28.26 | 4. 37.68 | 5. 6.28 |
| 6. 18.84 | 7. 21.98 | 8. 31.68 | 9. 34.96 | 10. 29.54 |
| 11. 2.65 | 12. 6.59 | 13. -2.16 | 14. 5.24 | 15. 2.65 |

7.6 Derive and Use the Pythagorean Theorem

Answers

- | | | | | |
|-------|--------|-----------|----------|----------|
| 1. 5 | 2. 10 | 3. 15 | 4. 45 | 5. 25 |
| 6. 30 | 7. 12 | 8. 21 | 9. 40 | 10. 44 |
| 11. 2 | 12. 48 | 13. False | 14. True | 15. True |

7.7 Derive and Use the Converse of the Pythagorean Theorem

Answers

- | | | | | |
|----------|----------|---------|---------|---------|
| 1. False | 2. True | 3. True | 4. True | 5. True |
| 6. False | 7. False | 8. True | 9. No | 10. Yes |
| 11. No | 12. Yes | 13. No | 14. Yes | 15. Yes |

7.8 Use the Pythagorean Theorem

Answers

- | | | | | |
|----------|---------|----------|--------|---------|
| 1. Yes | 2. No | 3. Yes | 4. Yes | 5. No |
| 6. Yes | 7. yes | 8. No | 9. Yes | 10. Yes |
| 11. 11.7 | 12. 8.6 | 13. 11.4 | 14. 10 | 15. 15 |

7.9 The Pythagorean Theorem, Perimeter and Area

Answers

- | | | | | |
|---------|--------|---------|---------------|------------------------|
| 1. 17.2 | 2. 8 | 3. 9 | 4. 20 | 5. 24 |
| 6. 50 | 7. 2.5 | 8. 7.5 | 9. 11 | 10. 60 |
| 11. 45 | 12. 17 | 13. yes | 14. 72 inches | 15. 360 in^2 |

7.10 Identify and Use the Distance Formula

Answers

- | | | | | |
|--------|--------|---------|--------|---------|
| 1. 5 | 2. 13 | 3. 11.3 | 4. 5 | 5. 5.1 |
| 6. 6 | 7. 6.4 | 8. 8 | 9. 5.4 | 10. 3.2 |
| 11. 12 | 12. 5 | 13. 4 | 14. 6 | 15. 8.5 |

7.11 45-45-90 Triangles

Answers

- | | | | | |
|----------------|----------------|----------------|----------------|----------------|
| 1. $5\sqrt{2}$ | 2. $4\sqrt{2}$ | 3. $6\sqrt{2}$ | 4. $3\sqrt{2}$ | 5. $7\sqrt{2}$ |
| 6. 7.07 | 7. 5.66 | 8. 8.49 | 9. 4.24 | 10. 9.90 |
| 11. 11.31 | 12. 14.14 | 13. 18.38 | 14. 29.70 | 15. 24.04 |

7.12 30-60-90 Triangles

Answers

- | | | | | |
|----------------|----------------|----------------|-----------------|-----------------|
| 1. $3\sqrt{3}$ | 2. $4\sqrt{3}$ | 3. $2\sqrt{3}$ | 4. $4\sqrt{3}$ | 5. $10\sqrt{3}$ |
| 6. 5.20 | 7. 6.93 | 8. 3.46 | 9. 13.86 | 10. 17.32 |
| 11. 30-60-90 | 12. 45-45-90 | 13. 2 ft. | 14. $9\sqrt{2}$ | 15. $4\sqrt{3}$ |

7.13 Understanding Sines

Answers

- | | | | | |
|-----------|-----------|----------|----------|-----------|
| 1. .8 | 2. .6 | 3. No | 4. .28 | 5. .96 |
| 6. .33 | 7. .94 | 8. 14.14 | 9. True | 10. True |
| 11. False | 12. False | 13. True | 14. True | 15. False |

7.14 Understanding Cosines

Answers

- | | | |
|---------|-------------------------|--|
| 1. .6 | 2. .8 | 3. Adjacent/hypotenuse compared to the angle |
| 4. .96 | 5. .28 | 6. .94 |
| 7. .33 | 8. 14.14 | 9. yes |
| 10. Yes | 11. Adjacent/hypotenuse | 12. .25 |
| 13. .20 | 14. .09 | 15. .86 |

7.15 Understanding Tangents

Answers

- | | | | | |
|---------|---------|----------|---------|---------|
| 1. 1.33 | 2. .75 | 3. False | 4. .29 | 5. 3.43 |
| 6. .35 | 7. 2.83 | 8. 14.14 | 9. .8 | 10. .7 |
| 11. .86 | 12. 4.5 | 13. .2 | 14. .33 | 15. .47 |

7.16 Determine and Use the Sine Ratio

Answers

- | | | | | |
|----------|----------|----------|----------|-----------|
| 1. .82 | 2. .42 | 3. .19 | 4. .87 | 5. .97 |
| 6. .21 | 7. .48 | 8. .26 | 9. .42 | 10. 7.25 |
| 11. 1.41 | 12. 4.23 | 13. 7.88 | 14. 3.54 | 15. 11.57 |

7.17 Determine and Use the Cosine Ratio

Answers

- | | | | |
|----------|----------|----------|----------|
| 1. .84 | 2. .87 | 3. .29 | 4. .03 |
| 5. .64 | 6. .39 | 7. .74 | 8. .95 |
| 9. .99 | 10. 3.5 | 11. 8.49 | 12. 6.55 |
| 13. 10.6 | 14. 5.03 | 15. 4.33 | 16. 1.91 |

7.18 Determine and Use the Tangent Ratio

Answers

- | | | | | |
|--------|-----------|----------|---------|----------|
| 1. .12 | 2. .87 | 3. 2.14 | 4. .40 | 5. .32 |
| 6. .70 | 7. 1.19 | 8. 1.38 | 9. 2.25 | 10. 2.75 |
| 11. 6 | 12. 13.74 | 13. 3.33 | 14. .96 | 15. 1.27 |