

Chapter 9 Review

Answer Section

1. ANS:

$$\tan P = \frac{9}{40}$$

PTS: 1 DIF: Level A REF: MAL21672

TOP: Lesson 9.1 Use Trigonometry with Right Triangles

MSC: DOK 1 NOT: 978-0-547-31541-6

KEY: sine | cosine | tangent | right triangle

2. ANS: C

PTS: 1

DIF: Level B

REF: MAL21674

TOP: Lesson 9.1 Use Trigonometry with Right Triangles

MSC: DOK 2 NOT: 978-0-547-31541-6

KEY: sine | right triangle | side

3. ANS:

$$\frac{1}{\sqrt{3}} = \frac{\sqrt{3}}{3}$$

PTS: 1 DIF: Level B REF: MAL21677

LOC: NCTM.PSSM.00.MTH.9-12.GEO.1.d

TOP: Lesson 9.1 Use Trigonometry with Right Triangles

MSC: DOK 2 NOT: 978-0-547-31541-6

KEY: evaluate | no calculator | cotangent

4. ANS:

$$\frac{1}{2}$$

PTS: 1 DIF: Level B REF: MAL21679

LOC: NCTM.PSSM.00.MTH.9-12.GEO.1.d

TOP: Lesson 9.1 Use Trigonometry with Right Triangles

MSC: DOK 2 NOT: 978-0-547-31541-6

KEY: evaluate | cosine | no calculator

5. ANS:

$$\frac{2}{\sqrt{3}} = \frac{2\sqrt{3}}{3}$$

PTS: 1 DIF: Level B REF: MAL21680

LOC: NCTM.PSSM.00.MTH.9-12.GEO.1.d

TOP: Lesson 9.1 Use Trigonometry with Right Triangles

MSC: DOK 2 NOT: 978-0-547-31541-6

KEY: secant | no calculator | evaluate

6. ANS:

$$\frac{1}{\sqrt{2}} = \frac{\sqrt{2}}{2}$$

PTS: 1 DIF: Level B REF: MAL21682

LOC: NCTM.PSSM.00.MTH.9-12.GEO.1.d

TOP: Lesson 9.1 Use Trigonometry with Right Triangles

MSC: DOK 2 NOT: 978-0-547-31541-6

KEY: cosine | no calculator | evaluate

7. ANS:

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

PTS: 1 DIF: Level B REF: MAL21701

LOC: NCTM.PSSM.00.MTH.9-12.GEO.1.d

TOP: Lesson 9.1 Use Trigonometry with Right Triangles

KEY: trigonometry | right triangle | missing | side

MSC: DOK 2

NOT: 978-0-547-31541-6

8. ANS:

$$B = 45^\circ, b = 3.00, c = 4.24$$

PTS: 1 DIF: Level B REF: MAL21703

LOC: NCTM.PSSM.00.MTH.9-12.GEO.1.d

TOP: Lesson 9.1 Use Trigonometry with Right Triangles

KEY: solve | trigonometry | right triangle

MSC: DOK 2

NOT: 978-0-547-31541-6

9. ANS:

1.36 m

PTS: 1 DIF: Level B REF: MAL21705 NAT: NT.CCSS.MTH.10.9-12.G.SRT.8

TOP: Lesson 9.1 Use Trigonometry with Right Triangles

KEY: solve | word | angle | trigonometry | sine | elevation

MSC: DOK 2

NOT: 978-0-547-31541-6

10. ANS: D

PTS: 1

DIF: Level B

REF: MAL21706

NAT: NT.CCSS.MTH.10.9-12.G.SRT.8

TOP: Lesson 9.1 Use Trigonometry with Right Triangles

KEY: word | trigonometry

MSC: DOK 2

NOT: 978-0-547-31541-6

11. ANS:

Positive coterminal angle: 249° Negative coterminal angle: -471°

PTS: 1 DIF: Level A REF: MAL21710

TOP: Lesson 9.2 Define General Angles and Use Radian Measure

KEY: degree | positive | coterminal | negative | angle

MSC: DOK 2

NOT: 978-0-547-31541-6

12. ANS:

Positive coterminal angle: $\frac{7\pi}{6}$ Negative coterminal angle: $-\frac{17\pi}{6}$

PTS: 1 DIF: Level A REF: MAL21712

TOP: Lesson 9.2 Define General Angles and Use Radian Measure

KEY: radian | positive | coterminal | negative | angle

MSC: DOK 2

NOT: 978-0-547-31541-6

13. ANS:

$$\frac{4\pi}{15} \text{ radians}$$

PTS: 1 DIF: Level B REF: MAL21723
 TOP: Lesson 9.2 Define General Angles and Use Radian Measure
 KEY: convert | radian MSC: DOK 2 NOT: 978-0-547-31541-6

14. ANS:

$$84^\circ$$

PTS: 1 DIF: Level B REF: MAL21726
 TOP: Lesson 9.2 Define General Angles and Use Radian Measure
 KEY: degree | convert MSC: DOK 2 NOT: 978-0-547-31541-6

15. ANS: B

PTS: 1

DIF: Level B

REF: MAL21730

NAT: NT.CCSS.MTH.10.9-12.F.TF.1

TOP: Lesson 9.2 Define General Angles and Use Radian Measure

KEY: circle | radius | arc length MSC: DOK 2 NOT: 978-0-547-31541-6

16. ANS: C

PTS: 1

DIF: Level B

REF: MAL21731

TOP: Lesson 9.2 Define General Angles and Use Radian Measure

KEY: area | sector | circle MSC: DOK 2 NOT: 978-0-547-31541-6

17. ANS:

$$-\sqrt{5}$$

PTS: 1 DIF: Level B REF: MAL21734
 TOP: Lesson 9.3 Evaluate Trigonometric Functions of Any Angle
 KEY: secant | point | side | terminal MSC: DOK 2 NOT: 978-0-547-31541-6

18. ANS:

$$17^\circ$$

PTS: 1 DIF: Level B REF: MAL21735
 TOP: Lesson 9.3 Evaluate Trigonometric Functions of Any Angle
 KEY: degree | reference angle MSC: DOK 1 NOT: 978-0-547-31541-6

19. ANS:

$$\frac{\pi}{3}$$

PTS: 1 DIF: Level A REF: MAL21738
 TOP: Lesson 9.3 Evaluate Trigonometric Functions of Any Angle
 KEY: reference angle | radian MSC: DOK 1 NOT: 978-0-547-31541-6

20. ANS:

$$C = 81^\circ, a = 72.39, c = 97.76$$

PTS: 1 DIF: Level B REF: MAL21756 NAT: NT.CCSS.MTH.10.9-12.G.SRT.10
 TOP: Lesson 9.5 Apply the Law of Sines KEY: solve | triangle | Law of Sines
 MSC: DOK 2 NOT: 978-0-547-31541-6

21. ANS: C

PTS: 1

DIF: Level B

REF: MAL21757

NAT: NT.CCSS.MTH.10.9-12.G.SRT.10

TOP: Lesson 9.5 Apply the Law of Sines

KEY: solve | triangle | Law of Sines MSC: DOK 2 NOT: 978-0-547-31541-6

22. ANS:
 $c = 21.35$ or 3.23

PTS: 1 DIF: Level B REF: MAL21764 NAT: NT.CCSS.MTH.10.9-12.G.SRT.10
TOP: Lesson 9.5 Apply the Law of Sines
KEY: triangle | trigonometry | Law of Sines MSC: DOK 2
NOT: 978-0-547-31541-6