**Chap 6 Pre-Test**

**Multiple Choice**

*Identify the choice that best completes the statement or answers the question.*

**\_\_\_\_ 1.** Point P(9, 4) is on the terminal arm of an angle ** in standard position. To the nearest tenth, determine the distance from the origin to P.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **A.** | 6.5 | **B.** | 9.8 | **C.** | 13.0 | **D.** | 5.1 |

**\_\_\_\_ 2.** Determine the exact value of cos 30.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **A.** |  | **B.** |  | **C.** |  | **D.** |  |

**\_\_\_\_ 3.** In which quadrant does the terminal arm of a  angle in standard position lie?

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **A.** | Quadrant 1 | **B.** | Quadrant 2 | **C.** | Quadrant 3 | **D.** | Quadrant 4 |

**\_\_\_\_ 4.** Determine the reference angle for the angle 290° in standard position.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **A.** | 290° | **B.** | 20° | **C.** | 110° | **D.** | 70° |

**\_\_\_\_ 5.** The point P(4, –3) lies on the terminal arm of an angle ** in standard position. Determine the measure of ** to the nearest degree.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **A.** | 323° | **B.** | –143° | **C.** | 233° | **D.** | 127° |

**\_\_\_\_ 6.** For DEF, determine the measure of E to the nearest degree.



|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **A.** | 155° | **B.** | 27° | **C.** | 25° | **D.** | 58° |

**\_\_\_\_ 7.** For XYZ, determine the measure of Z to the nearest degree and the measure of XZ to the nearest tenth of a centimetre.



|  |  |  |  |
| --- | --- | --- | --- |
| **A.** | Z = 28°; XZ = 7.3 cm | **C.** | Z = 53°; XZ = 8.0 cm |
| **B.** | Z = 30°; XZ = 12.1 cm | **D.** | Z = 59°; XZ = 4.8 cm |

**\_\_\_\_ 8.** In MNP, determine the lengths of the two unknown sides to the nearest tenth of a centimetre.



|  |  |  |  |
| --- | --- | --- | --- |
| **A.** | NP = 12.0 cm; MP = 4.8 cm | **C.** | NP = 19.7 cm; MP = 4.7 cm |
| **B.** | NP = 7.4 cm; MP = 12.1 cm | **D.** | NP = 19.7 cm; MP = 4.8 cm |

**\_\_\_\_ 9.** In XYZ, determine the length of XZ to the nearest tenth of a centimetre.



|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **A.** | 161.5 cm | **B.** | 7.7 cm | **C.** | 12.7 cm | **D.** | 11.7 cm |

**Short Answer**

**1.** In ABC, B = 45°, AB = 4.2 cm, and BC = 5.9 cm. Determine the measure of C to the nearest degree.

**Problem**

**1.** Point P(–1, –5) is a terminal point of an angle ** in standard position.

a) Determine the ratios , , and .

b) Determine the measure of ** to the nearest degree.

Show your work.

**2.** Solve ABC. Give angle measures to the nearest degree.



**Chap 6 Pre-Test**

**Answer Section**

**MULTIPLE CHOICE**

**1.** ANS: B PTS: 0 DIF: Easy

REF: 6.1 Angles in Standard Position in Quadrant 1 LOC: 11.T1

TOP: Trigonometry KEY: Conceptual Understanding | Procedural Knowledge

**2.** ANS: B PTS: 0 DIF: Moderate

REF: 6.1 Angles in Standard Position in Quadrant 1 LOC: 11.T2

TOP: Trigonometry KEY: Conceptual Understanding | Procedural Knowledge

**3.** ANS: D PTS: 0 DIF: Easy

REF: 6.2 Angles in Standard Position in All Quadrants LOC: 11.T1

TOP: Trigonometry KEY: Conceptual Understanding

**4.** ANS: D PTS: 0 DIF: Easy

REF: 6.2 Angles in Standard Position in All Quadrants LOC: 11.T1

TOP: Trigonometry KEY: Conceptual Understanding | Procedural Knowledge

**5.** ANS: A PTS: 0 DIF: Moderate

REF: 6.2 Angles in Standard Position in All Quadrants LOC: 11.T2

TOP: Trigonometry KEY: Conceptual Understanding | Procedural Knowledge

**6.** ANS: B PTS: 0 DIF: Easy REF: 6.4 The Sine Law

LOC: 11.T3 TOP: Trigonometry KEY: Procedural Knowledge

**7.** ANS: B PTS: 0 DIF: Moderate REF: 6.4 The Sine Law

LOC: 11.T3 TOP: Trigonometry

KEY: Conceptual Understanding | Procedural Knowledge

**8.** ANS: B PTS: 0 DIF: Moderate REF: 6.4 The Sine Law

LOC: 11.T3 TOP: Trigonometry

KEY: Conceptual Understanding | Procedural Knowledge

**9.** ANS: C PTS: 1 DIF: Moderate REF: 6.5 The Cosine Law

LOC: 11.T3 TOP: Trigonometry

KEY: Conceptual Understanding | Procedural Knowledge

**SHORT ANSWER**

**1.** ANS:

C = 45°

PTS: 1 DIF: Moderate REF: 6.5 The Cosine Law

LOC: 11.T3 TOP: Trigonometry

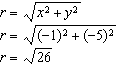
KEY: Conceptual Understanding | Procedural Knowledge

**PROBLEM**

**1.** ANS:

a) Determine the distance *r* from the origin to P.

, 









b) The reference angle is: 

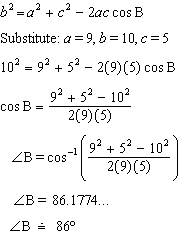
Since ** is in Quadrant 3, the angle ** is approximately: 

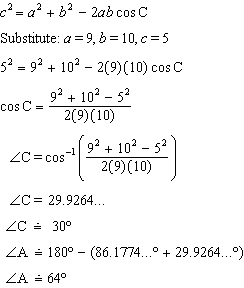
PTS: 0 DIF: Moderate REF: 6.2 Angles in Standard Position in All Quadrants

LOC: 11.T2 TOP: Trigonometry

KEY: Procedural Knowledge | Communication

**2.** ANS:

Use: 

Use: 

PTS: 1 DIF: Moderate REF: 6.5 The Cosine Law

LOC: 11.T3 TOP: Trigonometry

KEY: Conceptual Understanding | Procedural Knowledge