**Chapter 2 TEST**

Calculator Part

**Short Answer**

 **1.** A drive belt wraps around three pulleys, A, B, and C, as shown.



What is the measure of B to the nearest tenth?

**\_\_\_\_ 2.** Determine, to the nearest tenth of a degree, the measure of B.

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 **3.** Gursant and Leo are both standing on the north side of a monument that is 6.0 m tall. Leo is standing 3.5 m closer to the monument than Gursant. Leo measures the angle from the ground to the top of the monument to be 41°. Determine the angle that Gursant would measure from the ground to the top of the monument, to the nearest degree.

 **4.** In , *c* = 11 cm, *b* = 7 cm, and .

**a)** Sketch possible diagrams for this situation.

**b)** Determine the measure of C to the nearest degree in each diagram.

**c)** Calculate the length of BCin only one of the diagrams (the one that you choose).

NON-Calculator Part

**Multiple Choice**

**\_\_\_\_ 5.** What is the reference angle for 265in standard position?

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| **A** | 5 | **C** | -95 |
| **B** | 85 | **D** | 65 |

**\_\_\_\_ 6.** What is the exact value of A?



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| --- | --- | --- | --- |
| **A** | 60 | **C** | 45 |
| **B** | 25 | **D** | 30 |

**\_\_\_\_ 7.** What is the exact value for $tan⁡(150°)$?

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| --- | --- | --- | --- |
| **A** |  | **C** | $-$ |
| **B** |  | **D** |  |

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**Short Answer**

 **8.** Determine the exact value of *x*.



 **9.** Determine the exact values of the following ratios and say what the reference angle is.

 **Reference angle**

**i)** cos 45° = 🡪

**ii)** tan 300° = 🡪

**iii)** sin 240° = 🡪

 **10.** The point A(–3, –5) is on the terminal arm of an angle . Determine exact expressions for the primary trigonometric ratios for the angle.

**11.** Solve the following equations for $0°<x<360°$.
a) $cosx=\frac{1}{2}$

b) $sinx=-\frac{1}{\sqrt{2}}$

**c)** $tanx=1$