Pre-Calc AB Worksheet 2 : Answers

1. $\tan\theta = \frac{3}{4}$

2. $\sin\theta = \frac{\sqrt{2}}{2}$

3. $\cos A = \frac{2}{7}$

4. $\tan A = \frac{\sqrt{15}}{15}$

5. $\sin\theta = \frac{7\sqrt{2}}{34}$

6. $\tan\theta = \frac{15}{8}$

7. $\cos\theta = \frac{15}{17}$

8. $\sin\theta = \frac{\sqrt{5}}{5}$

9. $x \approx 6.5\ cm$

10. $x \approx 7.6\ cm$

11. $b \approx 2.1$

12. $c \approx 16$

13. $\overline{AB} \approx 35.2\ km$
    $\overline{AC} \approx 15.6\ km$
    $\angle CAB \approx 63.7°$

14. $\overline{AB} \approx 12.6\ cm$
    $\angle CBA \approx 23.3°$
    $\angle CAB \approx 66.7°$

15. $\sqrt{34}\angle 210.96°$
    $\sqrt{34}\angle -149.04°$
    $-\sqrt{34}\angle 30.96°$
    $-\sqrt{34}\angle -329.04°$

16. (1) $11.88\hat{i} + 1.67\hat{j}$
    (2) $-5\hat{i} + 0\hat{j}$

17. The cliff is about 49.58 ft tall.

18. The cars are about 47.638 ft apart.

19.

Statements	Reasons
1. $\overline{AB} \cong \overline{CD}$	Given
2. $\angle ABD \cong \angle CDB$	Given
3. $\overline{BD} \cong \overline{BD}$	Reflexive Property
4. $\triangle ABD \cong \triangle CDB$	SAS

20.

Statements	Reasons
1. $\overline{PR} \cong \overline{TR}$	Given
2. $\angle P \cong \angle T$	Given
3. $\angle PRQ \cong \angle TRS$	Vertical Angles
4. $\triangle RPQ \cong \triangle RTS$	AAS

21.

Statements	Reasons
1. $\overline{LM} \cong \overline{JM}$	Given
2. $\angle LKM = 90°$	Given
3. $\triangle LKM$ Right Triangle	By 2
4. $\angle JKM = 90°$	Supplement
5. $\triangle JKM$ Right Triangle	By 4
6. $\overline{KM} \cong \overline{KM}$	Reflexive Property
7. $\triangle LKM \cong \triangle JKM$	HL

22.

Statements	Reasons
1. $\overline{AB} \cong \overline{ED}$	Given
2. $\angle A \cong \angle D$	Given
3. $\angle ACB \cong \angle DCE$	Vertical Angles
4. $\triangle ABC \cong \triangle DCE$	AAS

23.

Statements	Reasons
1. $\overline{PS} \cong \overline{QR}$	Given
2. $\overline{PQ} \cong \overline{SR}$	Given
3. $\overline{PR} \cong \overline{PR}$	Reflexive Property
4. $\triangle PRS \cong \triangle RPQ$	SSS

24.

Statements	Reasons
1. $\angle M \cong \angle L$	Given
2. $\overline{JN}$ bisects $\overline{ML}$	Given
3. $\overline{MK} \cong \overline{KL}$	Def of Bisect
4. $\angle MKJ \cong \angle LKN$	Reflexive Property
5. $\triangle MJK \cong \triangle LNK$	AAS