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 18.64 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