

### SM3H unit 8 test review answers

1. 1
2.  $\sec^2 x$
3.  $2 \sec x$
4.  $-\cot^2 x$
5. 1
6. 1
7. work is the answer
8. work is the answer
9. work is the answer
10. work is the answer
11. work is the answer
12. work is the answer
13.  $\sin \alpha = -\frac{2\sqrt{5}}{5}$        $\csc \alpha = -\frac{\sqrt{5}}{2}$   
 $\cos \alpha = \frac{\sqrt{5}}{5}$        $\sec \alpha = \sqrt{5}$   
 $\tan \alpha = -2$        $\cot \alpha = -\frac{1}{2}$
14.  $\frac{\sqrt{2}-\sqrt{6}}{4}$
15.  $\frac{\sqrt{6}-\sqrt{2}}{4}$
16.  $\frac{-3+\sqrt{3}}{3+\sqrt{3}}$  or  $\frac{1-\sqrt{3}}{1+\sqrt{3}}$  or  $-2 + \sqrt{3}$
17.  $\frac{-\sqrt{2}+\sqrt{6}}{4}$
18.  $-\frac{\sqrt{2}}{2}$
19.  $\frac{1}{2}$
20.  $\frac{-10-12\sqrt{21}}{65}$
21.  $\frac{-16\sqrt{2}-15}{51}$
22.  $x = \frac{5\pi}{12} + \pi k$  and  $x = \frac{7\pi}{12} + \pi k$
23.  $30^\circ, 210^\circ, 60^\circ, 240^\circ$
24.  $0^\circ, 180^\circ, 45^\circ, 135^\circ, 225^\circ, 315^\circ$
25.  $0^\circ, 180^\circ$
26.  $\frac{3\pi}{2}$
27.  $90^\circ, 270^\circ, 30^\circ, 330^\circ$
28.  $180^\circ$
29.  $0^\circ$
30.  $\frac{\sqrt{3}}{2}$