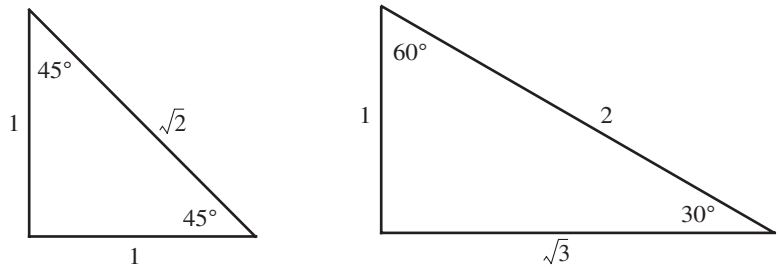
50 Calculating exact values of trigonometric functions

8	12	10	12	1	7	6	10	12	9	5	4	8		

11	8	3	2	4	13	3

Hubert H. Humphrey

Rules



Questions

1 If $\tan 225° = \tan (180° + \theta) = \tan \theta$, what does θ equal?

By simplifying and using the triangles above, calculate the exact value of each of the following.

2 $\tan 225°$

3 $\cos 120°$

4 $\sin \frac{5\pi}{3}$

5 $\tan 210°$

6 $\sin \frac{3\pi}{4}$

B

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7 $\tan \frac{2\pi}{3}$

8 $\cos 330°$

9 $\tan \frac{7\pi}{3}$

10 $\tan 135°$

11 $\cos \frac{5\pi}{4}$

12 $\sin 150°$

13 $\tan \frac{11\pi}{6}$

Solutions

A	$-\frac{1}{\sqrt{2}}$	**O**	$-\frac{\sqrt{3}}{2}$
B	1	**P**	$\frac{1}{\sqrt{3}}$
D	$-\frac{1}{\sqrt{3}}$	**R**	$45°$
E	$\frac{1}{2}$	**U**	$\sqrt{3}$
G	$-\sqrt{3}$	**V**	-1
I	$\frac{1}{\sqrt{2}}$	**Y**	$-\frac{1}{2}$
N	$\frac{\sqrt{3}}{2}$		

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