

Evaluate a trigonometric expression exactly (leave as a fraction).

1. In  $\triangle ABC$ ,  $m\angle C = 90^\circ$ ,  $AC = 3$ ,  $BC = 4$ , and  $AB = 5$ . Find  $\sin \angle A$ .
2. In  $\triangle ABC$ ,  $m\angle C = 90^\circ$ ,  $AC = 3$ ,  $BC = 4$ , and  $AB = 5$ . Find  $\cos \angle A$ .
3. In  $\triangle ABC$ ,  $m\angle C = 90^\circ$ ,  $AC = 3$ ,  $BC = 4$ , and  $AB = 5$ . Find  $\tan \angle A$ .
4. In  $\triangle ABC$ ,  $m\angle C = 90^\circ$ ,  $AC = 3$ ,  $BC = 4$ , and  $AB = 5$ . Find  $\sin \angle B$ .
5. In  $\triangle ABC$ ,  $m\angle C = 90^\circ$ ,  $AC = 3$ ,  $BC = 4$ , and  $AB = 5$ . Find  $\cos \angle B$ .
6. In  $\triangle ABC$ ,  $m\angle C = 90^\circ$ ,  $AC = 3$ ,  $BC = 4$ , and  $AB = 5$ . Find  $\tan \angle B$ .
7. In  $\triangle DEF$ ,  $m\angle E = 90^\circ$ ,  $DE = 8$ ,  $FE = 15$ , and  $DF = 17$ . Find  $\sin \angle D$ .
8. In  $\triangle DEF$ ,  $m\angle E = 90^\circ$ ,  $DE = 8$ ,  $FE = 15$ , and  $DF = 17$ . Find  $\cos \angle D$ .
9. In  $\triangle DEF$ ,  $m\angle E = 90^\circ$ ,  $DE = 8$ ,  $FE = 15$ , and  $DF = 17$ . Find  $\tan \angle D$ .
10. In  $\triangle DEF$ ,  $m\angle E = 90^\circ$ ,  $DE = 8$ ,  $FE = 15$ , and  $DF = 17$ . Find  $\sin \angle F$ .
11. In  $\triangle DEF$ ,  $m\angle E = 90^\circ$ ,  $DE = 8$ ,  $FE = 15$ , and  $DF = 17$ . Find  $\cos \angle F$ .
12. In  $\triangle DEF$ ,  $m\angle E = 90^\circ$ ,  $DE = 8$ ,  $FE = 15$ , and  $DF = 17$ . Find  $\tan \angle F$ .
13. In  $\triangle MNO$ ,  $m\angle N = 90^\circ$ ,  $NO = \sqrt{5}$ , and  $MO = 3$ . Find  $\sin \angle M$ .
14. In  $\triangle MNO$ ,  $m\angle N = 90^\circ$ ,  $NO = \sqrt{5}$ , and  $MO = 3$ . Find  $\cos \angle M$ .
15. In  $\triangle MNO$ ,  $m\angle N = 90^\circ$ ,  $NO = \sqrt{5}$ , and  $MO = 3$ . Find  $\tan \angle M$ .
16. In  $\triangle MNO$ ,  $m\angle N = 90^\circ$ ,  $NO = \sqrt{5}$ , and  $MO = 3$ . Find  $\sin \angle O$ .
17. In  $\triangle MNO$ ,  $m\angle N = 90^\circ$ ,  $NO = \sqrt{5}$ , and  $MO = 3$ . Find  $\cos \angle O$ .
18. In  $\triangle MNO$ ,  $m\angle N = 90^\circ$ ,  $NO = \sqrt{5}$ , and  $MO = 3$ . Find  $\tan \angle O$ .
19. In  $\triangle PQR$ ,  $m\angle Q = 90^\circ$ ,  $PQ = 1$ , and  $QR = 3$ . Find  $\sin \angle P$ .
20. In  $\triangle PQR$ ,  $m\angle Q = 90^\circ$ ,  $PQ = 1$ , and  $QR = 3$ . Find  $\cos \angle P$ .
21. In  $\triangle PQR$ ,  $m\angle Q = 90^\circ$ ,  $PQ = 1$ , and  $QR = 3$ . Find  $\tan \angle P$ .
22. In  $\triangle PQR$ ,  $m\angle Q = 90^\circ$ ,  $PQ = 1$ , and  $QR = 3$ . Find  $\sin \angle R$ .
23. In  $\triangle PQR$ ,  $m\angle Q = 90^\circ$ ,  $PQ = 1$ , and  $QR = 3$ . Find  $\cos \angle R$ .
24. In  $\triangle PQR$ ,  $m\angle Q = 90^\circ$ ,  $PQ = 1$ , and  $QR = 3$ . Find  $\tan \angle R$ .