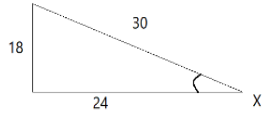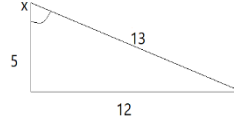# Missing sides and Angles of a Right triangle

Find the value of each trigonometric ratio as fractions in their simplest form.

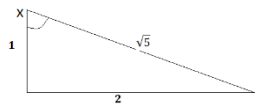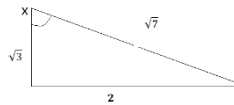1) $\sin x$, $\cos x$, $\tan x$, $\cot x$

30
18
24
X

2) $\sin x$, $\cos x$, $\tan x$, $\cot x$

x
13
5
12

3) $\sin x$, $\cos x$, $\tan x$, $\cot x$

x
1
$\sqrt{5}$
2

4) $\sin x$, $\cos x$, $\tan x$, $\cot x$

x
$\sqrt{3}$
$\sqrt{7}$
2

Find the missing side. Round answers to the nearest tenth.

5)

37°
X
3

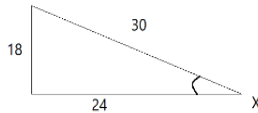6)

X
60°
7

7)

15
60°
x

8)

30
18
x
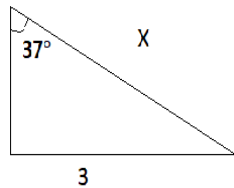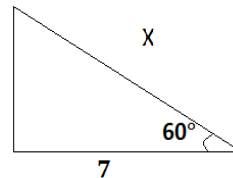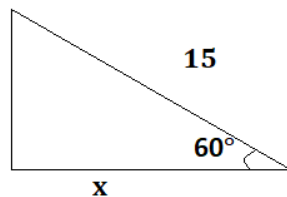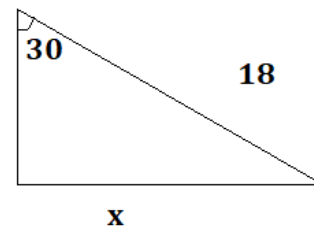
Answers

✏️ **Find the value of each trigonometric ratio as fractions.**

1) $\sin x$, $\cos x$, $\tan x$, $\cot x$
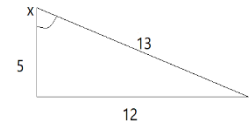
$\sin x = \dfrac{3}{5}$, $\cos x = \dfrac{4}{5}$

$\tan x = \dfrac{3}{4}$, $\cot x = \dfrac{4}{3}$

2) $\sin x$, $\cos x$, $\tan x$, $\cot x$
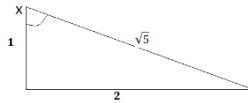
$\sin x = \dfrac{12}{13}$, $\cos x = \dfrac{5}{13}$

$\tan x = \dfrac{12}{5}$, $\cot x = \dfrac{5}{12}$

3) $\sin x$, $\cos x$, $\tan x$, $\cot x$

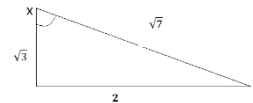$\sin x = \dfrac{2\sqrt{5}}{5}$, $\cos x = \dfrac{\sqrt{5}}{5}$

$\tan x = \dfrac{2}{1}$, $\cot x = \dfrac{1}{2}$

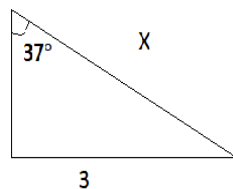4) $\sin x$, $\cos x$, $\tan x$, $\cot x$

$\sin x = \dfrac{2\sqrt{7}}{7}$, $\cos x = \dfrac{\sqrt{3}}{\sqrt{7}}$

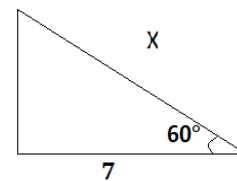$\tan x = \dfrac{2}{\sqrt{3}}$, $\cot x = \dfrac{\sqrt{3}}{2}$

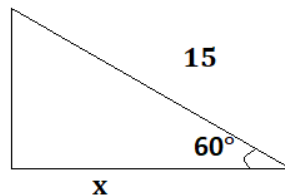✏️ **Find the missing side. Round answers to the nearest tenth.**
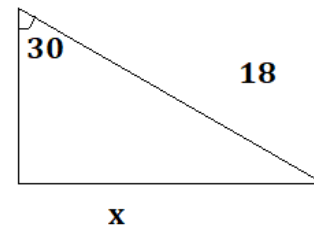
5) $x = 5$

6) $x = 14$

7) $x = 7.5$

8) $x = 9$