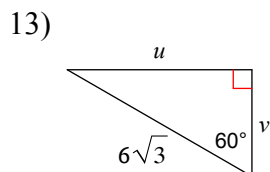
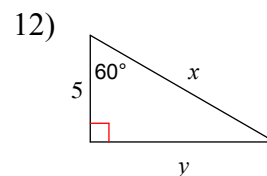
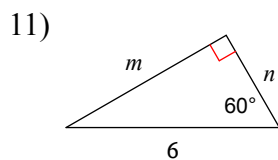
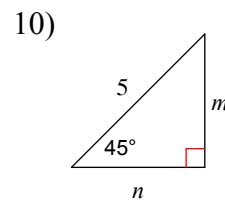
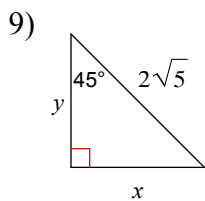
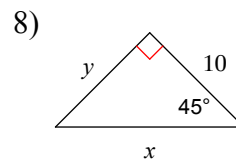
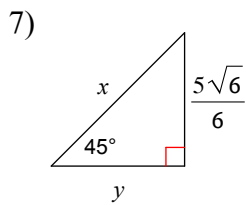
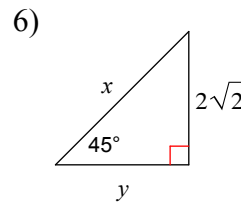
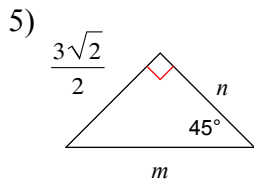
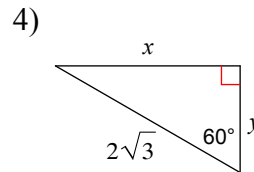
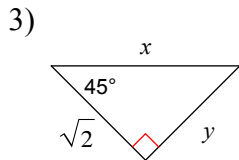
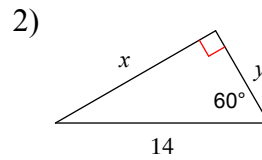
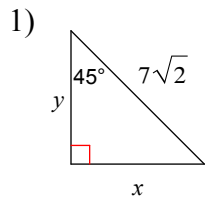
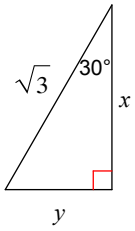


Chapter 13: Right Triangles and Trigonometry

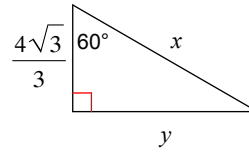
Find the missing side lengths. Leave your answers as radicals in simplest form.



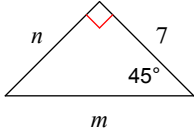
14)



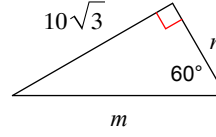
15)



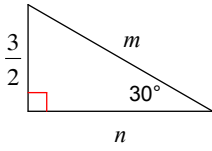
16)



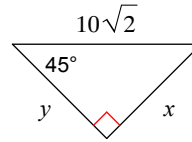
17)



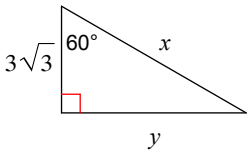
18)



19)

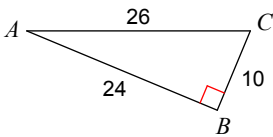


20)

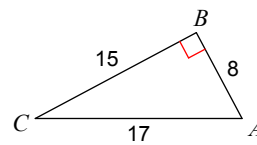


**Find the value of each trigonometric ratio.**

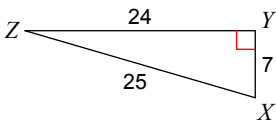
21)  $\cos C$



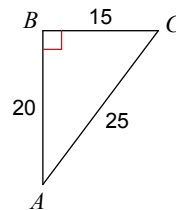
22)  $\cos C$



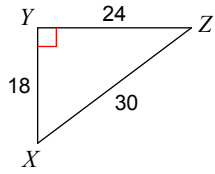
23)  $\sin Z$



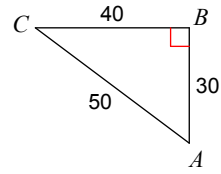
24)  $\sin A$



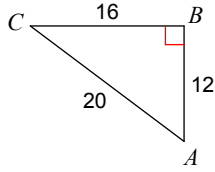
25)  $\tan X$



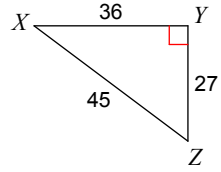
26)  $\tan C$



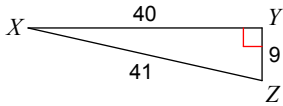
27)  $\sin A$



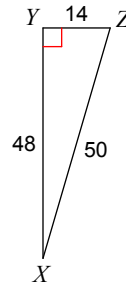
28)  $\tan X$



29)  $\sin X$

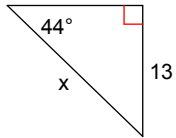


30)  $\tan X$

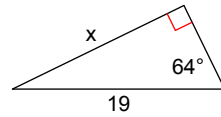


**Find the missing side. Round to the nearest tenth.**

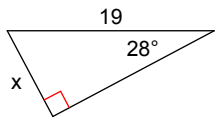
31)



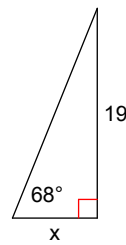
32)



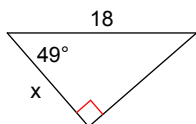
33)



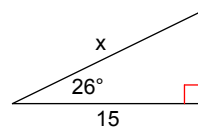
34)



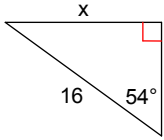
35)



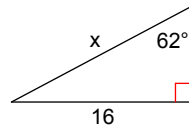
36)



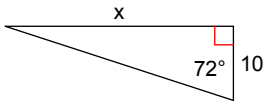
37)



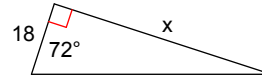
38)



39)

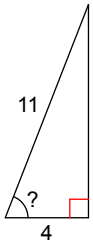


40)

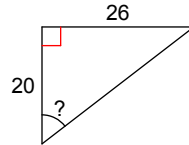


**Find the measure of the indicated angle to the nearest degree.**

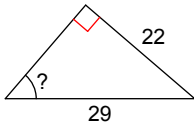
41)



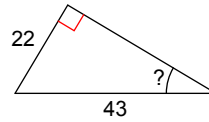
42)



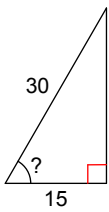
43)



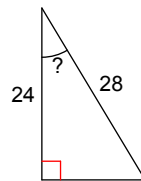
44)



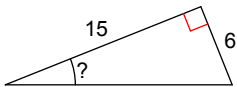
45)



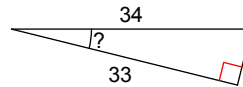
46)



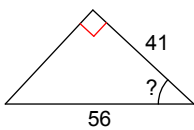
47)



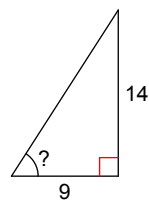
48)



49)



50)



## Answers to Chapter 13: Right Triangles and Trigonometry (ID: 1)

- |                                      |                                   |  |   |
|--------------------------------------|-----------------------------------|--|---|
| 1) $x = 7, y = 7$                    | 2) $x = 7\sqrt{3}, y = 7$         | 3) $x = 2, y = \sqrt{2}$                               | 4) $x = 3, y = \sqrt{3}$                      |
| 5) $m = 3, n = \frac{3\sqrt{2}}{2}$  | 6) $x = 4, y = 2\sqrt{2}$         | 7) $x = \frac{5\sqrt{3}}{3}, y = \frac{5\sqrt{6}}{6}$  |   |
| 8) $x = 10\sqrt{2}, y = 10$          | 9) $x = \sqrt{10}, y = \sqrt{10}$ | 10) $m = \frac{5\sqrt{2}}{2}, n = \frac{5\sqrt{2}}{2}$ |   |
| 11) $m = 3\sqrt{3}, n = 3$           | 12) $x = 10, y = 5\sqrt{3}$       | 13) $u = 9, v = 3\sqrt{3}$                             | 14) $x = \frac{3}{2}, y = \frac{\sqrt{3}}{2}$ |
| 15) $x = \frac{8\sqrt{3}}{3}, y = 4$ | 16) $m = 7\sqrt{2}, n = 7$        | 17) $m = 20, n = 10$                                   | 18) $m = 3, n = \frac{3\sqrt{3}}{2}$          |
| 19) $x = 10, y = 10$                 | 20) $x = 6\sqrt{3}, y = 9$        | 21) $\frac{5}{13}$                                     | 22) $\frac{15}{17}$                           |
| 23) $\frac{7}{25}$                   | 24) $\frac{3}{5}$                 | 25) $\frac{4}{3}$                                      | 26) $\frac{3}{4}$                             |
| 27) $\frac{4}{5}$                    | 28) $\frac{3}{4}$                 | 29) $\frac{9}{41}$                                     | 30) $\frac{7}{24}$                            |
| 31) 18.7                             | 32) 17.1                          | 33) 8.9  | 34) 7.7                                       |
| 35) 11.8                             | 36) 16.7                          | 37) 12.9   | 38) 18.1                                      |
| 39) 30.8                             | 40) 55.4                          | 41) $69^\circ$   | 42) $52^\circ$                                |
| 43) $49^\circ$                       | 44) $31^\circ$                    | 45) $60^\circ$   | 46) $31^\circ$                                |
| 47) $22^\circ$                       | 48) $14^\circ$                    | 49) $43^\circ$   | 50) $57^\circ$                                |