

Answers (which are on the back) may be written as decimals or fractions.

1. Solve each equation for x :

(a) $\frac{3}{8}x = 54$

(b) $5x - 3 = 4(x + 1)$

(c) $7x - 5 = 3x + 17$

(d) $x + .63 = 3(x - .35) + .1$

2. Solve each equation for \sqrt{x} :

(a) $5\sqrt{x} + 2 = 37$

(b) $7(\sqrt{x} - 5) = 11(3 - 2\sqrt{x})$

3. Solve each equation for “ $\cos x$ ”:

(a) $18^2 = 5^2 + 17^2 - 2(5)(17) \cos x$

(b) $35^2 = 18^2 + 15^2 - 2(18)(15) \cos x$

4. Solve each equation for x :

(a) $x^2 = 64$

(b) $x^2 + 5x = 36$

(c) $x^2 + (.3)^2 = 1$

(d) $(8.25)^2 + (7.5)^2 = x^2$

5. Solve each equation for x :

(a) $\frac{x}{5} = \frac{7}{11}$

(b) $\frac{x}{2x-3} = \frac{19}{24}$

(c) $\frac{x}{9} = \frac{4}{x}$

(d) $\frac{3}{x+2} = \frac{8}{7}$

6. Solve each equation for “ $\sin x$ ”:

(a) $\frac{\sin x}{8.3} = \frac{.745}{19}$

(b) $\frac{22}{\sin x} = \frac{45}{.873}$

(c) $\frac{.458}{18.6} = \frac{\sin x}{25.3}$

Answers (I did these by hand; it is possible that they contain errors)

1. (a) $x = 144$
(b) $x = 7$
(c) $x = \frac{11}{2} = 5.5$
(d) $x = .79$
2. (a) $\sqrt{x} = 7$
(b) $\sqrt{x} = \frac{68}{29}$
3. (a) $\cos x = \frac{-1}{17} = -.0588235$
(b) $\cos x = \frac{-169}{135} = -1.25185$
4. (a) $x = \pm 8$
(b) $x = -9, x = 4$
(c) $x = \pm .953939$
(d) $x = \pm 11.1496$
5. (a) $x = \frac{35}{11} = 3.18182$
(b) $x = \frac{57}{14} = 4.07143$
(c) $x = \pm 6$
(d) $x = \frac{5}{8} = .675$
6. (a) $\sin x = .325447$
(b) $\sin x = .4268$
(c) $\sin x = .622978$