

1. $7y + 2 = 15 + 3y$

2. $\frac{x}{8} = \frac{x+1}{9}$

3. $14 = 8 + \frac{m}{2}$

4. $4x + 1 = 8$

5. $1 + \frac{6}{x} = -11$

6. $11x - 3 = 7$

7. $4 - x = 2(x - 4)$

8. $\frac{7+x}{x} = 22$

9. Find a if $ax - 40 = x + 2$ and $x = 2$

10. $\frac{6x}{2} = 18$

11. $6x + 20 = 2x$

12. Find c if $k = c + 293$ and $k = 20$

13. $6(x - 2) - 12 = 2x$

14. Find y if $3x + 5y = 29$ and $x = 3$

15. $3 = \frac{12 - x}{x}$

16. $\frac{x}{6} = \frac{x+3}{7}$

17. $x - 20 = 5x - 20$

18. $5x = 12 + 2x$

19. $10 - x = x - 10$

20. $6x + 16 = 2x$

21. $\frac{2}{5x} + \frac{1}{x} = 21$

22. $-6x > -24$

23. $2x < -10$

24. $2x + 1 < 41$

25. $-2x + 1 < -9$

26. $x - 2 < -2$

27. $x + 2 < -2$

28. $2x+1 < 4x+21$

29. $4x+2 < 2x-8$

30. $\frac{x}{4} + \frac{3x}{8} > 10$

31. Find P if $P = 2(L+W)$, $L = 10$,
 $W = 6$

32. Find $f(4)$ if $f(x) = \frac{x+10}{x-5}$

33. Find A if $A = \pi r^2$, $\pi = 3.14$, $r = 6$

34. Find C if $C = \frac{5}{9}(F - 32)$ and $F = 50$

35. Find $f(-3)$ if $f(x) = 2x^2 - 4x - 10$

36. If $x = -5$ then evaluate
 $(x+9)(x+5)$

37. Find $f(-1)$ if $f(x) = x^4 - 12x^2 + 11$

38. Find $f(2)$ if $f(x) = x^2 + 3$

39. Find $f(-2)$ if $f(x) = 4x^2$

40. Find $f(8)$ if $f(x) = x^{-2}$

41. Find $f(2)$ if $f(x) = \frac{4x}{1-x}$

42. Find $M(4)$ if $M(x) = x + 8$

43. Find $f(-1)$ if $f(x) = (x+1)^2 + 2$

44. Find $f(1)$ if $f(x) = (x+1)^2 + 4$

45. Find $f(-2)$ if $f(x) = 4(x+1)^2 + 9$

46. Find $f(0)$ if $f(x) = \frac{1}{2}x + 3$

47. Find $f(4)$ if $f(x) = \frac{1}{4}x - 2$

48. Find $f(-1)$ if $f(x) = \sqrt{x+1} + 2$

49. Find $f(0)$ if $f(x) = \sqrt{x+1} + 8$

50. Find $f(4)$ if $f(x) = |x-8|$

51. Find $f(-4)$ if $f(x) = |5x-2|$

52. Find $Pr - r$ if $P = -11$ and $r = \frac{1}{2}$

53. Find $f\left(\frac{1}{4}\right)$ if $f(x) = \frac{1}{x} + \frac{3}{x}$

64. Simplify $\frac{x+4x^2}{x}$

54. Find the mean of \$1000, \$2000, \$4000, \$7000, \$9000

65. Simplify $\frac{2xy+y}{y}$

55. Solve for C if $A^2 + B^2 = C^2$, $A = 6$, $B = 8$

66. Find N if $a^2 + N + 8b^2 = (a+b)(a+8b)$

56. Evaluate $1000(1.05)^2$

67. Find V if $V = \pi r^2 h$, $r = 6a$, $h = 2a + 5$

57. Simplify $\frac{a^{10}}{a^3}$

68. Find the area of the rectangle if $L = x + 3$ and $W = 2x - 9$

58. Simplify $(-4xy^3)(-20x^2y^4)$

69. Find the area of the square if $L = 4a - b$

59. Simplify $-8xy(4xy - 7x)$

70. If $4x^2 - 16 = m$, then find $x^2 - 4$

60. Simplify $-2a^3(ab^2 + b^2)$

71. Simplify $(2xy^8)^4$

61. Simplify $\left(\frac{10}{x}\right)^2$

72. Simplify $\left(\frac{8k}{2}\right)^2$

62. Simplify $\left(\frac{4}{x}\right)^3$

73. Simplify $p - 0.15p$

63. Simplify $\left(\frac{2x}{3y}\right)\left(\frac{27y}{8x^2}\right)$

74. Simplify $m - 0.25m$

75. Simplify $m - 0.75m$

76. Find x if $\frac{ax-b}{4a-1} = b$

77. Simplify $\frac{-45x^8y^7z^{11}}{-30x^2y^5z^4}$

78. Simplify $(3x+2y)(3x-2y)$

79. Simplify $(3x-2y)(3x-2y)$

80. Simplify $(4x-3y)^2$

81. Simplify $(x+2)(x-8)$

82. Simplify $(x-2)(x+8)$

83. Simplify $(x+1)(x-7)$

84. Simplify $(x-1)(x+7)$

85. Simplify $(x+3)(x-6)$

86. Simplify $(x-3)(x+4)$

87. Simplify $(x+2)(x+4)$

88. Simplify $(x-2)(x-4)$

89. Simplify $(x+1)(x-2)$

90. Simplify $(x-1)(x+2)$

91. Simplify $(x-4)(x-6)$

92. Simplify $(x-5)(x-5)$

93. Simplify $(x+4)(x-4)$

94. Simplify $(2x-1)(x+3)$

95. Simplify $(2x+3)(2x-3)$

96. Simplify $(2x+1)(x-3)$

97. Simplify $(2x+1)(x+3)$

98. Simplify $(2x-1)(x-3)$

99. Simplify $(3x-2)(4x+3)$

100. Simplify $(3x+2)(4x-3)$

101. Simplify $(2x-3)(x+4)$

102. Simplify $(2x+3)(x-4)$

103. Simplify $(x-5)(3x+2)$

104. Simplify $(x+5)(3x-2)$

105. Simplify $(8x+1)(x-1)$

106. Simplify $(8x-1)(x+1)$

107. Simplify $(2x-5)(3x+5)$

108. Simplify $(2x+5)(3x-5)$

109. Simplify $x(x+2)(x+4)$

110. Simplify $2x(x+2)(x-8)$

111. Factor $x^2 - y^2$

112. Factor $a^2 - b^2$

113. Factor $x^2 - 25$

114. Factor $x^2 - 16y^2$

115. Factor $100x^2 - 9y^2$

116. Factor $\frac{x^2}{16} - \frac{y^2}{25}$

117. Factor $\frac{9x^2}{16} - 25$

118. Factor $\frac{9x^2}{16} - \frac{25}{49}$

119. Factor $\frac{x^2}{9} - 25$

120. Factor $\frac{9x^2}{16} - \frac{25y^2}{49}$

121. Factor $x^2 + 6x + 8$

122. Factor $x^2 - 6x + 8$

123. Factor $x^2 - 6x - 16$

124. Factor $x^2 + 6x - 16$

125. Factor $x^2 - 6x - 7$

126. Factor $x^2 + 6x - 7$

127. Factor $x^2 - x - 12$

128. Factor $x^2 + x - 12$

129. Factor $x^2 - 7x + 12$

130. Factor $x^2 - x - 2$

131. Factor $x^2 + x - 2$

132. Factor $x^2 - 3x + 2$

133. Factor $x^2 + 3x + 2$

134. Factor $2x^2 + 5x - 3$

135. Factor $2x^2 - 5x - 3$

136. Factor $12x^2 + x - 6$

137. Factor $12x^2 - x - 6$

138. Factor $3x^2 - 13x - 10$

139. Factor $3x^2 + 13x - 10$

140. Factor $8x^2 - 7x - 1$

141. Factor $8x^2 + 7x - 1$

142. Factor $6x^2 - 5x - 25$

143. Factor $6x^2 - 25x + 25$

144. Factor $2x^2 + 12x + 16$

145. Factor $x^3 + 6x^2 + 8x$

146. Factor $2x^3 + 12x^2 + 16x$

147. Factor $2x^3 - 12x^2 - 32x$

148. Factor GCF $3x^3 - 18x^2 + 3x$

149. Solve $x^2 + 6x + 8 = 0$

150. Solve $x^2 - 6x + 8 = 0$

151. Solve $x^2 - 6x - 16 = 0$

152. Solve $x^2 + 6x - 16 = 0$

153. Solve $x^2 - 6x - 7 = 0$

154. Solve $x^2 + 6x - 7 = 0$

155. Solve $x^2 + x - 12 = 0$

156. Solve $x^2 + x = 12$

157. Solve $x^2 + 12 = 7x$

158. Solve $x^2 = x + 2$

159. Solve $x(x+1) = 2$

160. Solve $x^2 - 3x = -2$

174. Solve $\sqrt{x} = 5$

161. Solve $x^2 + 2 = -3x$

175. Solve $\sqrt{x+3} = 5$

162. Solve $2x^2 - 5x - 3 = 0$

176. Solve $\sqrt{x-2} = 8$

163. Solve $12x^2 - x - 6 = 0$

177. Solve $\sqrt{x} + 2 = 5$

164. Solve $3x^2 + 13x - 10 = 0$

178. Solve $\sqrt{x} - 2 = 7$

165. Solve $8x^2 + 7x - 1 = 0$

179. Find t if $t = \frac{\sqrt{x}}{2}$ and $x = 32$

166. Solve $6x^2 - 5x = 25$

180. Find t if $t = \frac{\sqrt{x}}{2}$ and $x = 8$

167. Solve $x^2 = 25$

168. Solve $x^2 = 2$

181. Find x if $y = mx^2$

169. Solve $(x+2)^2 = 9$

182. Find x if $y = 5mx^2$

170. Solve $(x-4)^2 = 25$

183. Find x if $y = \frac{1}{5}mx^2$

171. Solve $(x+2)^2 = 5$

184. Find x if $y = \frac{1}{11}mx^2$

172. Solve $\frac{x}{9} = \frac{1}{x}$

185. Solve for x
$$\begin{array}{l} x - y = 6 \\ x + y = 8 \end{array}$$

173. Solve $\frac{x}{3} = \frac{1}{x}$

186. Solve for y

$$\begin{aligned}x - y &= 4 \\ x &= 2y\end{aligned}$$

187. Solve for x

$$\begin{aligned}x + y &= 6 \\ x - y &= 2\end{aligned}$$

188. Solve for x

$$\begin{aligned}x + 2y &= 9 \\ x &= y\end{aligned}$$

189. Solve for x

$$\begin{aligned}x + y &= 50 \\ x - y &= 0\end{aligned}$$

190. Solve for x

$$\begin{aligned}2x + 3y &= 5 \\ 4x - 2y &= 2\end{aligned}$$

191. Solve for x

$$\begin{aligned}3x + 2y &= 5 \\ 4x + 7y &= 11\end{aligned}$$

192. Graph $y = x + 4$

193. Graph $y = -2x + 4$

194. Graph $y = 2x + 6$

195. Graph $y = \frac{1}{2}x - 1$

196. Graph $y = x^2$

197. Graph $y = x^2 - 4$

198. Graph $y = (x - 4)^2 - 9$

199. Graph $y = |x|$

200. Graph $y = |x - 2| + 4$