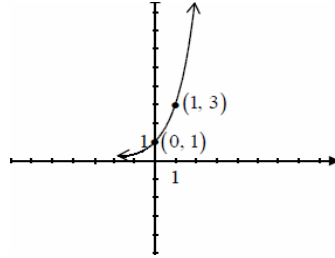


LOGARITHMS

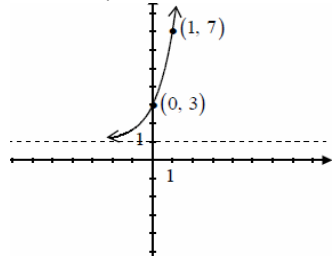
- | | | |
|-------------------------------------|--|-----------------|
| 1 D | 56 A | 109 $x = 8$ |
| 2 D | 57 C | 110 B |
| 3 B | 58 A | 111 A |
| 4 B | 59 D | 112 D |
| 5 C | 60 $y = \frac{x^2}{27}, x > 0, y > 0, y \neq 1$ | 113 D |
| 6 D | 61 B | 114 B |
| 7 C | 62 D | 115 B |
| 8 15.6 years | 63 A | 116 A |
| 9 A | 64 C | 117 C |
| 10 C | 65 A | 118 40.71 years |
| 11 B | 66 D | 119 D |
| 12 B | 67 D | 120 D |
| 13 D | 68 C | 121 C |
| 14 D | 69 A | 122 D |
| 15 B | 70 C | 123 A |
| 16 $x = -2$ | 71 A | 124 A |
| 17 A | 72 D | 125 C |
| 18 A | 73 A | 126 $x = -3$ |
| 19 D | 74 A | 127 D |
| 20 C | 75 C | 128 D |
| 21 B | 76 36 848 years | 129 D |
| 22 A | 77 asymptote: $y = -2$, x -int: $\log_5 2 - 1$,
y -int: 3 | 130 C |
| 23 A | 78 D | 131 D |
| 24 4 165 600 | 79 B | 132 B |
| 25 B | 80 A | 133 7.87 days |
| 26 A | 81 26 weeks | 134 C |
| 27 A | 82 B | 135 A |
| 28 A | 83 D | 136 B |
| 29 B | 84 A | 137 D |
| 30 A | 85 B | 138 D |
| 31 $x = \frac{5}{2}$ | 86 C | 139 B |
| 32 C | 87 D | 140 A |
| 33 A | 88 B | 141 $x = -1.76$ |
| 34 A | 89 B | 142 B |
| 35 A | 90 130.03 days | 143 C |
| 36 C | 91 D | 144 D |
| 37 B | 92 C | 145 C |
| 38 92.88 weeks | 93 A | 146 C |
| 39 B | 94 D | 147 A |
| 40 A | 95 D | 148 D |
| 41 C | 96 C | 149 A |
| 42 A | 97 D | 150 B |
| 43 B | 98 C | 151 A |
| 44 B | 99 $x = -3$ | 152 D |
| 45 D | 100 $k = 0.14$ | 153 D |
| 46 D | 101 D | 154 $x = -1$ |
| 47 A | 102 A | 155 B |
| 48 D | 103 D | 156 C |
| 49 D | 104 A | 157 A |
| 50 B | 105 C | 158 28.20 days |
| 51 C | 106 D | 159 D |
| 52 137 years | 107 A | 160 B |
| 53 $y = 8x, x > 0, y > 0, y \neq 1$ | 108 B | 161 C |
| 54 A | | 162 A |
| 55 C | | 163 C |

- 164 D
- 165 A
- 166 A
- 167 C
- 168 $x = 7$
- 169 A
- 170 D
- 171 C
- 172 C
- 173 D
- 174 B
- 175 A
- 176 C
- 177 B
- 178 $n = 10.87$
- 179 D
- 180 B
- 181 B
- 182 C
- 183 $x = -2.96$
- 184 C
- 185 C
- 186 C
- 187 $x = 6$
- 188 B
- 189 B
- 190 B
- 191 B
- 192 B
- 193 A
- 194 C
- 195 B
- 196 B
- 197 A
- 198 D
- 199 D
- 200 23.44 weeks
- 201 93.19 h
- 202 21.12 m
- 203 31.59 years
- 204 A
- 205 D
- 206 A
- 207 C
- 208 B
- 209 B
- 210 D
- 211 D
- 212 C
- 213 C
- 214 B
- 215 A
- 216 C

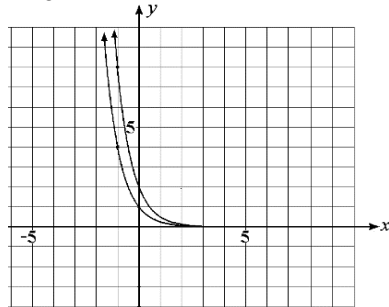
- 217 C
- 218 C
- 219 A
- 220 $x = -5$
- 221 $x = -1$
- 222 $x = \frac{1}{2}$
- 223 $x = 2$
- 224 $x = \frac{4}{3}$ or -3
- 225 $x = -3$
- 226 D
- 227 502
- 228 C
- 229 D
- 230 a)



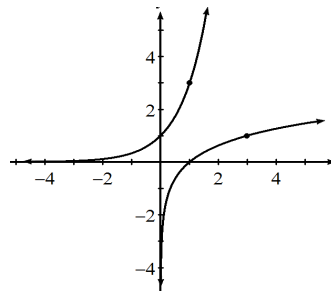
230 b)



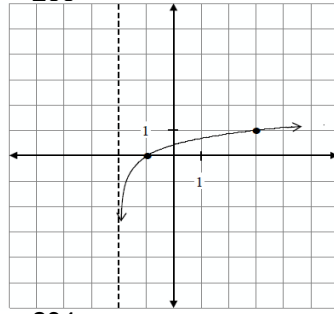
231



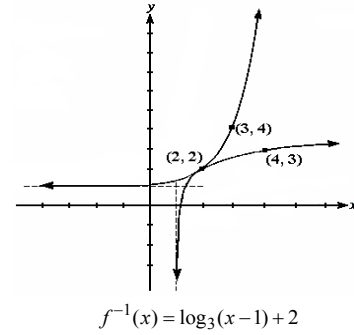
232



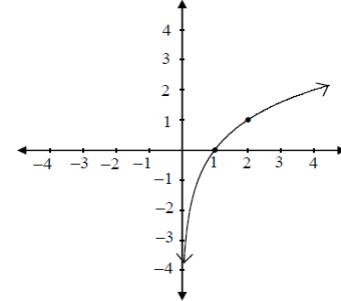
233



234



235 a)



b)

