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11. $\int \frac{1}{x^2 + 1} dx = \arctan x + C$
12. $\int \frac{1}{x^2 - 1} dx = \frac{1}{2} \ln \left| \frac{x-1}{x+1} \right| + C$
13. $\int \frac{1}{x^2 + 4} dx = \frac{1}{2} \arctan \frac{x}{2} + C$
14. $\int \frac{1}{x^2 - 4} dx = \frac{1}{4} \ln \left| \frac{x-2}{x+2} \right| + C$
15. $\int \frac{1}{x^2 + 9} dx = \frac{1}{3} \arctan \frac{x}{3} + C$
16. $\int \frac{1}{x^2 - 9} dx = \frac{1}{6} \ln \left| \frac{x-3}{x+3} \right| + C$
17. $\int \frac{1}{x^2 + 16} dx = \frac{1}{4} \arctan \frac{x}{4} + C$
18. $\int \frac{1}{x^2 - 16} dx = \frac{1}{8} \ln \left| \frac{x-4}{x+4} \right| + C$
19. $\int \frac{1}{x^2 + 25} dx = \frac{1}{5} \arctan \frac{x}{5} + C$
20. $\int \frac{1}{x^2 - 25} dx = \frac{1}{10} \ln \left| \frac{x-5}{x+5} \right| + C$
21. $\int \frac{1}{x^2 + 36} dx = \frac{1}{6} \arctan \frac{x}{6} + C$
22. $\int \frac{1}{x^2 - 36} dx = \frac{1}{12} \ln \left| \frac{x-6}{x+6} \right| + C$
23. $\int \frac{1}{x^2 + 49} dx = \frac{1}{7} \arctan \frac{x}{7} + C$
24. $\int \frac{1}{x^2 - 49} dx = \frac{1}{14} \ln \left| \frac{x-7}{x+7} \right| + C$
25. $\int \frac{1}{x^2 + 64} dx = \frac{1}{8} \arctan \frac{x}{8} + C$
26. $\int \frac{1}{x^2 - 64} dx = \frac{1}{16} \ln \left| \frac{x-8}{x+8} \right| + C$
27. $\int \frac{1}{x^2 + 81} dx = \frac{1}{9} \arctan \frac{x}{9} + C$
28. $\int \frac{1}{x^2 - 81} dx = \frac{1}{18} \ln \left| \frac{x-9}{x+9} \right| + C$
29. $\int \frac{1}{x^2 + 100} dx = \frac{1}{10} \arctan \frac{x}{10} + C$
30. $\int \frac{1}{x^2 - 100} dx = \frac{1}{20} \ln \left| \frac{x-10}{x+10} \right| + C$
31. $\int \frac{1}{x^2 + 121} dx = \frac{1}{11} \arctan \frac{x}{11} + C$
32. $\int \frac{1}{x^2 - 121} dx = \frac{1}{22} \ln \left| \frac{x-11}{x+11} \right| + C$
33. $\int \frac{1}{x^2 + 144} dx = \frac{1}{12} \arctan \frac{x}{12} + C$
34. $\int \frac{1}{x^2 - 144} dx = \frac{1}{24} \ln \left| \frac{x-12}{x+12} \right| + C$
35. $\int \frac{1}{x^2 + 169} dx = \frac{1}{13} \arctan \frac{x}{13} + C$
36. $\int \frac{1}{x^2 - 169} dx = \frac{1}{26} \ln \left| \frac{x-13}{x+13} \right| + C$
37. $\int \frac{1}{x^2 + 196} dx = \frac{1}{14} \arctan \frac{x}{14} + C$
38. $\int \frac{1}{x^2 - 196} dx = \frac{1}{28} \ln \left| \frac{x-14}{x+14} \right| + C$
39. $\int \frac{1}{x^2 + 225} dx = \frac{1}{15} \arctan \frac{x}{15} + C$
40. $\int \frac{1}{x^2 - 225} dx = \frac{1}{30} \ln \left| \frac{x-15}{x+15} \right| + C$
41. $\int \frac{1}{x^2 + 256} dx = \frac{1}{16} \arctan \frac{x}{16} + C$
42. $\int \frac{1}{x^2 - 256} dx = \frac{1}{32} \ln \left| \frac{x-16}{x+16} \right| + C$
43. $\int \frac{1}{x^2 + 289} dx = \frac{1}{17} \arctan \frac{x}{17} + C$
44. $\int \frac{1}{x^2 - 289} dx = \frac{1}{34} \ln \left| \frac{x-17}{x+17} \right| + C$
45. $\int \frac{1}{x^2 + 324} dx = \frac{1}{18} \arctan \frac{x}{18} + C$
46. $\int \frac{1}{x^2 - 324} dx = \frac{1}{36} \ln \left| \frac{x-18}{x+18} \right| + C$
47. $\int \frac{1}{x^2 + 361} dx = \frac{1}{19} \arctan \frac{x}{19} + C$
48. $\int \frac{1}{x^2 - 361} dx = \frac{1}{38} \ln \left| \frac{x-19}{x+19} \right| + C$
49. $\int \frac{1}{x^2 + 400} dx = \frac{1}{20} \arctan \frac{x}{20} + C$
50. $\int \frac{1}{x^2 - 400} dx = \frac{1}{40} \ln \left| \frac{x-20}{x+20} \right| + C$
51. $\int \frac{1}{x^2 + 441} dx = \frac{1}{21} \arctan \frac{x}{21} + C$
52. $\int \frac{1}{x^2 - 441} dx = \frac{1}{42} \ln \left| \frac{x-21}{x+21} \right| + C$
53. $\int \frac{1}{x^2 + 484} dx = \frac{1}{22} \arctan \frac{x}{22} + C$
54. $\int \frac{1}{x^2 - 484} dx = \frac{1}{44} \ln \left| \frac{x-22}{x+22} \right| + C$
55. $\int \frac{1}{x^2 + 529} dx = \frac{1}{23} \arctan \frac{x}{23} + C$
56. $\int \frac{1}{x^2 - 529} dx = \frac{1}{46} \ln \left| \frac{x-23}{x+23} \right| + C$
57. $\int \frac{1}{x^2 + 576} dx = \frac{1}{24} \arctan \frac{x}{24} + C$
58. $\int \frac{1}{x^2 - 576} dx = \frac{1}{48} \ln \left| \frac{x-24}{x+24} \right| + C$
59. $\int \frac{1}{x^2 + 625} dx = \frac{1}{25} \arctan \frac{x}{25} + C$
60. $\int \frac{1}{x^2 - 625} dx = \frac{1}{50} \ln \left| \frac{x-25}{x+25} \right| + C$
61. $\int \frac{1}{x^2 + 676} dx = \frac{1}{26} \arctan \frac{x}{26} + C$
62. $\int \frac{1}{x^2 - 676} dx = \frac{1}{52} \ln \left| \frac{x-26}{x+26} \right| + C$
63. $\int \frac{1}{x^2 + 729} dx = \frac{1}{27} \arctan \frac{x}{27} + C$
64. $\int \frac{1}{x^2 - 729} dx = \frac{1}{54} \ln \left| \frac{x-27}{x+27} \right| + C$
65. $\int \frac{1}{x^2 + 784} dx = \frac{1}{28} \arctan \frac{x}{28} + C$
66. $\int \frac{1}{x^2 - 784} dx = \frac{1}{56} \ln \left| \frac{x-28}{x+28} \right| + C$
67. $\int \frac{1}{x^2 + 841} dx = \frac{1}{29} \arctan \frac{x}{29} + C$
68. $\int \frac{1}{x^2 - 841} dx = \frac{1}{58} \ln \left| \frac{x-29}{x+29} \right| + C$
69. $\int \frac{1}{x^2 + 900} dx = \frac{1}{30} \arctan \frac{x}{30} + C$
70. $\int \frac{1}{x^2 - 900} dx = \frac{1}{60} \ln \left| \frac{x-30}{x+30} \right| + C$
71. $\int \frac{1}{x^2 + 961} dx = \frac{1}{31} \arctan \frac{x}{31} + C$
72. $\int \frac{1}{x^2 - 961} dx = \frac{1}{62} \ln \left| \frac{x-31}{x+31} \right| + C$
73. $\int \frac{1}{x^2 + 1024} dx = \frac{1}{32} \arctan \frac{x}{32} + C$
74. $\int \frac{1}{x^2 - 1024} dx = \frac{1}{64} \ln \left| \frac{x-32}{x+32} \right| + C$
75. $\int \frac{1}{x^2 + 1089} dx = \frac{1}{33} \arctan \frac{x}{33} + C$
76. $\int \frac{1}{x^2 - 1089} dx = \frac{1}{66} \ln \left| \frac{x-33}{x+33} \right| + C$
77. $\int \frac{1}{x^2 + 1156} dx = \frac{1}{34} \arctan \frac{x}{34} + C$
78. $\int \frac{1}{x^2 - 1156} dx = \frac{1}{68} \ln \left| \frac{x-34}{x+34} \right| + C$
79. $\int \frac{1}{x^2 + 1225} dx = \frac{1}{35} \arctan \frac{x}{35} + C$
80. $\int \frac{1}{x^2 - 1225} dx = \frac{1}{70} \ln \left| \frac{x-35}{x+35} \right| + C$
81. $\int \frac{1}{x^2 + 1296} dx = \frac{1}{36} \arctan \frac{x}{36} + C$
82. $\int \frac{1}{x^2 - 1296} dx = \frac{1}{72} \ln \left| \frac{x-36}{x+36} \right| + C$
83. $\int \frac{1}{x^2 + 1369} dx = \frac{1}{37} \arctan \frac{x}{37} + C$
84. $\int \frac{1}{x^2 - 1369} dx = \frac{1}{74} \ln \left| \frac{x-37}{x+37} \right| + C$
85. $\int \frac{1}{x^2 + 1444} dx = \frac{1}{38} \arctan \frac{x}{38} + C$
86. $\int \frac{1}{x^2 - 1444} dx = \frac{1}{76} \ln \left| \frac{x-38}{x+38} \right| + C$
87. $\int \frac{1}{x^2 + 1521} dx = \frac{1}{39} \arctan \frac{x}{39} + C$
88. $\int \frac{1}{x^2 - 1521} dx = \frac{1}{78} \ln \left| \frac{x-39}{x+39} \right| + C$
89. $\int \frac{1}{x^2 + 1600} dx = \frac{1}{40} \arctan \frac{x}{40} + C$
90. $\int \frac{1}{x^2 - 1600} dx = \frac{1}{80} \ln \left| \frac{x-40}{x+40} \right| + C$
91. $\int \frac{1}{x^2 + 1681} dx = \frac{1}{41} \arctan \frac{x}{41} + C$
92. $\int \frac{1}{x^2 - 1681} dx = \frac{1}{82} \ln \left| \frac{x-41}{x+41} \right| + C$
93. $\int \frac{1}{x^2 + 1764} dx = \frac{1}{42} \arctan \frac{x}{42} + C$
94. $\int \frac{1}{x^2 - 1764} dx = \frac{1}{84} \ln \left| \frac{x-42}{x+42} \right| + C$
95. $\int \frac{1}{x^2 + 1849} dx = \frac{1}{43} \arctan \frac{x}{43} + C$
96. $\int \frac{1}{x^2 - 1849} dx = \frac{1}{86} \ln \left| \frac{x-43}{x+43} \right| + C$
97. $\int \frac{1}{x^2 + 1936} dx = \frac{1}{44} \arctan \frac{x}{44} + C$
98. $\int \frac{1}{x^2 - 1936} dx = \frac{1}{88} \ln \left| \frac{x-44}{x+44} \right| + C$
99. $\int \frac{1}{x^2 + 2025} dx = \frac{1}{45} \arctan \frac{x}{45} + C$
100. $\int \frac{1}{x^2 - 2025} dx = \frac{1}{90} \ln \left| \frac{x-45}{x+45} \right| + C$

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