

1.

$$a = 1, b = 4, A = 0, B = 0,$$

$$p(x) = q(x) = 0, f(x) = 2 \cos(x) + \frac{3x^4}{4\sqrt{x+14}}.$$

2.

$$a = 1, b = 4, A = 0, B = 0,$$

$$p(x) = 1, q(x) = 0, f(x) = 2 \cos(12x).$$

Сравнить с аналитическим решением.

3.

$$a = 0, b = 14, A = 0, B = 10,$$

$$p(x) = \frac{1}{x}, q(x) = -\frac{3}{x^2}, f(x) = \cos(x).$$

4.

$$a = 0, b = 140, A = 10, B = 10,$$

$$p(x) = \frac{1}{x}, q(x) = -\frac{3}{x^2}, f(x) = \cos(x).$$

5.

$$a = 10, b = 40, A = 20, B = 10,$$

$$p(x) = \frac{1}{x}, q(x) = -\frac{3}{x^2}, f(x) = \frac{3}{x}.$$

6.

$$a = 10, b = 20, A = 20, B = -10,$$

$$p(x) = 0, q(x) = -1, f(x) = x.$$

Сравнить с аналитическим решением.

7.

$$a = -10, b = 20, A = 20, B = -19,$$
$$p(x) = 0, q(x) = -1, f(x) = 5x \sin(12x).$$

8.

$$a = -10, b = 20, A = 20, B = 20,$$
$$p(x) = 0, q(x) = -0.1, f(x) = 5x \sin(125x) + 2.$$

9.

$$a = -10, b = 20, A = 20, B = 20,$$
$$p(x) = 0, q(x) = 0, f(x) = \cos(2x).$$

Сравнить с аналитическим решением.

10.

$$a = -10, b = 20, A = 20, B = 0,$$
$$p(x) = -1, q(x) = 0, f(x) = -x.$$

Сравнить с аналитическим решением.

11.

$$a = -10, b = 20, A = 20, B = 0,$$
$$p(x) = -10, q(x) = -x, f(x) = -x.$$

12.

$$a = -10, b = 20, A = 0, B = 0,$$
$$p(x) = -10 \sin(x), q(x) = -\sin(x), f(x) = -x.$$

13.

$$a = -10, b = 20, A = 0, B = 0,$$
$$p(x) = -10 \sin(x), q(x) = -x \sin(x), f(x) = -x.$$

14.

$$a = -10, b = 20, A = 0, B = 0,$$
$$p(x) = -10 \sin(x), q(x) = -0.1 \sin(x), f(x) = -\cos(x).$$

15.

$$a = 0, b = 20, A = 10, B = 0,$$
$$p(x) = 0, q(x) = -\sin(x), f(x) = -\sin(x).$$

16.

$$a = 0, b = 20, A = 10, B = 0,$$
$$p(x) = 0, q(x) = -\sin(x), f(x) = -20 \sin(4x).$$

17.

$$a = 0, b = 20, A = 10, B = 0,$$
$$p(x) = 0, q(x) = -\sin(x), f(x) = -20.$$

18.

$$a = 0, b = 20, A = 10, B = 0,$$
$$p(x) = -1, q(x) = -\sin(x), f(x) = 20.$$

19.

$$a = 0, b = 20, A = 10, B = 0,$$
$$p(x) = x, q(x) = -\sin(x), f(x) = 2.$$

20.

$$a = 0, b = 20, A = 10, B = 0,$$
$$p(x) = -\cos(x), q(x) = -\sin(x), f(x) = 2.$$