

1 Найти общее решение уравнения с частными производными.

$$1). \quad (3x + 5y)\left(\frac{\partial z}{\partial x}\right) + (-5x + 3y)\left(\frac{\partial z}{\partial y}\right) = 0$$

$$2). \quad (-4x - 25y)\left(\frac{\partial z}{\partial x}\right) + (x + 4y)\left(\frac{\partial z}{\partial y}\right) = 0$$

$$3). \quad (-2x + 5y)\left(\frac{\partial z}{\partial x}\right) + (-5x - 2y)\left(\frac{\partial z}{\partial y}\right) = 0$$

$$4). \quad (x - y)\left(\frac{\partial z}{\partial x}\right) + (17x - y)\left(\frac{\partial z}{\partial y}\right) = 0$$

$$5). \quad (x + 3y)\left(\frac{\partial z}{\partial x}\right) + (-6x - 5y)\left(\frac{\partial z}{\partial y}\right) = 0$$

$$6). \quad (2x + 3y)\left(\frac{\partial z}{\partial x}\right) + (-3x + 2y)\left(\frac{\partial z}{\partial y}\right) = 0$$

$$7). \quad (x - y)\left(\frac{\partial z}{\partial x}\right) + (2x - y)\left(\frac{\partial z}{\partial y}\right) = 0$$

$$8). \quad (2x + 3y)\left(\frac{\partial z}{\partial x}\right) + 5x\left(\frac{\partial z}{\partial y}\right) = 0$$

$$9). \quad 3y\left(\frac{\partial z}{\partial x}\right) + (7x + 4y)\left(\frac{\partial z}{\partial y}\right) = 0$$

$$10). \quad (2x + 15y)\left(\frac{\partial z}{\partial x}\right) + x\left(\frac{\partial z}{\partial y}\right) = 0$$

$$11). \quad y\left(\frac{\partial z}{\partial x}\right) + (8x + 2y)\left(\frac{\partial z}{\partial y}\right) = 0$$

$$12). \quad x\left(\frac{\partial z}{\partial x}\right) + (2x - y)\left(\frac{\partial z}{\partial y}\right) = 0$$

$$13). \quad (-2x + 3y)\left(\frac{\partial z}{\partial x}\right) + (4x + 2y)\left(\frac{\partial z}{\partial y}\right) = 0$$

$$14). \quad (3x - 2y)\left(\frac{\partial z}{\partial x}\right) + (-6x + 4y)\left(\frac{\partial z}{\partial y}\right) = 0$$

$$15). \quad (-2x + 5y)\left(\frac{\partial z}{\partial x}\right) + (-5x - 2y)\left(\frac{\partial z}{\partial y}\right) = 0$$

$$16). \quad (-2x + 8y)\left(\frac{\partial z}{\partial x}\right) + (-x + 2y)\left(\frac{\partial z}{\partial y}\right) = 0$$

$$17). \quad (3x - y)\left(\frac{\partial z}{\partial x}\right) + (x + 3y)\left(\frac{\partial z}{\partial y}\right) = 0$$

$$18). \quad (x - 5y)\left(\frac{\partial z}{\partial x}\right) + (2x - y)\left(\frac{\partial z}{\partial y}\right) = 0$$

$$19). \quad (x + 2y)\left(\frac{\partial z}{\partial x}\right) + (-2x + y)\left(\frac{\partial z}{\partial y}\right) = 0$$

$$20). \quad (4x - 5y)\left(\frac{\partial z}{\partial x}\right) + x\left(\frac{\partial z}{\partial y}\right) = 0$$

$$21). \quad 3y\left(\frac{\partial z}{\partial x}\right) + (7x - 4y)\left(\frac{\partial z}{\partial y}\right) = 0$$

$$22). \quad (-2x + 3y)\left(\frac{\partial z}{\partial x}\right) + 5x\left(\frac{\partial z}{\partial y}\right) = 0$$

$$23). \quad 4y\left(\frac{\partial z}{\partial x}\right) + (3x + 4y)\left(\frac{\partial z}{\partial y}\right) = 0$$

$$24). \quad (2x + y)\left(\frac{\partial z}{\partial x}\right) + 15x\left(\frac{\partial z}{\partial y}\right) = 0$$

$$25). \quad 2y\left(\frac{\partial z}{\partial x}\right) + (6x + 4y)\left(\frac{\partial z}{\partial y}\right) = 0$$

$$26). \quad 3y\left(\frac{\partial z}{\partial x}\right) + (7x - 4y)\left(\frac{\partial z}{\partial y}\right) = 0$$

$$27). \quad (-2x + 3y)\left(\frac{\partial z}{\partial x}\right) + 5x\left(\frac{\partial z}{\partial y}\right) = 0$$

$$28). \quad 4y\left(\frac{\partial z}{\partial x}\right) + (3x + 4y)\left(\frac{\partial z}{\partial y}\right) = 0$$

$$29). \quad (2x + y)\left(\frac{\partial z}{\partial x}\right) + 15x\left(\frac{\partial z}{\partial y}\right) = 0$$

$$30). \quad 2y\left(\frac{\partial z}{\partial x}\right) + (6x + 4y)\left(\frac{\partial z}{\partial y}\right) = 0$$

$$31). \quad (x - y)\left(\frac{\partial z}{\partial x}\right) + (17x - y)\left(\frac{\partial z}{\partial y}\right) = 0$$