Linear Systems (A)

Solve each system of equations.

1. $-3a-2c+3u=6$
   $5a+4c=4$
   $5a=-20$

2. $3c+5u-3y=16$
   $-3c+4u=11$
   $4c=12$

3. $a-c-4v=-3$
   $4a+2c=-30$
   $4a=-24$

4. $-5v+x+3z=-20$
   $3v-2x=15$
   $2v=2$

5. $-2a+2b+4y=24$
   $4a-3b=-8$
   $-5a=10$

6. $3a+4c-6y=57$
   $-2a+2c=-4$
   $-3a=-15$

7. $5a-2v-3z=35$
   $-2a+6v=-8$
   $4a=16$

8. $-4b-5x-z=20$
   $-b+5x=0$
   $b=-5$

Linear Systems (A) Answers

Solve each system of equations.

1. $-3a-2c+3u=6$
   $5a+4c=4$
   $5a=-20$
   $a=-4, c=6, u=2$

2. $3c+5u-3y=16$
   $-3c+4u=11$
   $4c=12$
   $c=3, u=5, y=6$

3. $a-c-4v=-3$
   $4a+2c=-30$
   $4a=-24$
   $a=-6, c=-3, v=0$

4. $-5v+x+3z=-20$
   $3v-2x=15$
   $2v=2$
   $v=1, x=-6, z=-3$

5. $-2a+2b+4y=24$
   $4a-3b=-8$
   $-5a=10$
   $a=-2, b=0, y=5$

6. $3a+4c-6y=57$
   $-2a+2c=-4$
   $-3a=-15$
   $a=5, c=3, y=-5$

7. $5a-2v-3z=35$
   $-2a+6v=-8$
   $4a=16$
   $a=4, v=0, z=-5$

8. $-4b-5x-z=20$
   $-b+5x=0$
   $b=-5$
   $b=-5, x=-1, z=5$

Linear Systems (B)

Solve each system of equations.

1. $-4a-6c+4v=16$
   $-4a+5c=8$
   $-4a=8$

2. $2c-4u-2v=34$
   $c+4u=-18$
   $c=2$

3. $-a-c-5y=35$
   $a+c=-5$
   $-a=4$

4. $4a-6u+z=6$
   $3a+2u=26$
   $-5a=-30$

5. $5a+5c+3x=-40$
   $-2a-c=12$
   $-3a=12$

6. $2c+2v+3z=2$
   $2c+4v=-12$
   $2c=4$

7. $-2a+2c+5v=-5$
   $-3a-c=-14$
   $3a=18$

8. $-3c+v-2x=29$
   $3c-4v=-30$
   $2c=-12$

Linear Systems (B) Answers

Solve each system of equations.

1. $-4a-6c+4v=16$
$-4a+5c=8$
$-4a=8$
$a=-2, c=0, v=2$

2. $2c-4u-2v=34$
$c+4u=-18$
$c=2$
$c=2, u=-5, v=-5$

3. $-a-c-5y=35$
$a+c=-5$
$-a=4$
$a=-4, c=-1, y=-6$

4. $4a-6u+z=6$
$3a+2u=26$
$-5a=-30$
$a=6, u=4, z=6$

5. $5a+5c+3x=-40$
$-2a-c=12$
$-3a=12$
$a=-4, c=-4, x=0$

6. $2c+2v+3z=2$
$2c+4v=-12$
$2c=4$
$c=2, v=-4, z=2$

7. $-2a+2c+5v=-5$
$-3a-c=-14$
$3a=18$
$a=6, c=-4, v=3$

8. $-3c+v-2x=29$
$3c-4v=-30$
$2c=-12$
$c=-6, v=3, x=-4$

Linear Systems (C)

Solve each system of equations.

1. $-6v+x+3y=-11$
   $-2v+3x=-17$
   $v=1$

2. $-u+3v+2z=18$
   $3u+3v=12$
   $-6u=6$

3. $-b-3x-3z=17$
   $4b-2x=2$
   $5b=-10$

4. $5c-3x-3z=-37$
   $-4c-4x=16$
   $c=-5$

5. $-5a-6c-v=-19$
   $3a+c=8$
   $-3a=-6$

6. $6a-v+5y=34$
   $-4a-2v=2$
   $2a=2$

7. $4a+6x+4y=-46$
   $-a-3x=10$
   $a=-1$

8. $5c+6v-3y=-26$
   $4c-5v=-16$
   $-2c=8$

Linear Systems (C) Answers

Solve each system of equations.

1. $-6v+x+3y=-11$
   $-2v+3x=-17$
   $v=1$
   $v=1, x=-5, y=0$

2. $-u+3v+2z=18$
   $3u+3v=12$
   $-6u=6$
   $u=-1, v=5, z=1$

3. $-b-3x-3z=17$
   $4b-2x=2$
   $5b=-10$
   $b=-2, x=-5, z=0$

4. $5c-3x-3z=-37$
   $-4c-4x=16$
   $c=-5$
   $c=-5, x=1, z=3$

5. $-5a-6c-v=-19$
   $3a+c=8$
   $-3a=-6$
   $a=2, c=2, v=-3$

6. $6a-v+5y=34$
   $-4a-2v=2$
   $2a=2$
   $a=1, v=-3, y=5$

7. $4a+6x+4y=-46$
   $-a-3x=10$
   $a=-1$
   $a=-1, x=-3, y=-6$

8. $5c+6v-3y=-26$
   $4c-5v=-16$
   $-2c=8$
   $c=-4, v=0, y=2$

Linear Systems (D)

Solve each system of equations.

1. $4a - 6u + 6y = -24$
   $-5a - u = 12$
   $-6a = 18$

2. $4c + 4v + 4z = 12$
   $4c + 4v = 32$
   $-3c = -6$

3. $-b + 6x - 6z = 0$
   $-5b + 5x = 5$
   $-2b = 12$

4. $-4a + 4b + 3z = 29$
   $-3a + 4b = 28$
   $-4a = 16$

5. $a - 3b + 5x = 22$
   $6a + 6b = -54$
   $5a = -25$

6. $-c - 3u + 5z = 10$
   $-4c - 5u = 25$
   $5c = 0$

7. $-6a - 5b + 2c = 14$
   $5a + b = -1$
   $-4a = -4$

8. $-5a + 2v + 4z = 5$
   $-a + 5v = -29$
   $-6a = 6$

Linear Systems (D) Answers

Solve each system of equations.

1. $4a - 6u + 6y = -24$
$-5a - u = 12$
$-6a = 18$
$a = -3, u = 3, y = 1$

2. $4c + 4v + 4z = 12$
$4c + 4v = 32$
$-3c = -6$
$c = 2, v = 6, z = -5$

3. $-b + 6x - 6z = 0$
$-5b + 5x = 5$
$-2b = 12$
$b = -6, x = -5, z = -4$

4. $-4a + 4b + 3z = 29$
$-3a + 4b = 28$
$-4a = 16$
$a = -4, b = 4, z = -1$

5. $a - 3b + 5x = 22$
$6a + 6b = -54$
$5a = -25$
$a = -5, b = -4, x = 3$

6. $-c - 3u + 5z = 10$
$-4c - 5u = 25$
$5c = 0$
$c = 0, u = -5, z = -1$

7. $-6a - 5b + 2c = 14$
$5a + b = -1$
$-4a = -4$
$a = 1, b = -6, c = -5$

8. $-5a + 2v + 4z = 5$
$-a + 5v = -29$
$-6a = 6$
$a = -1, v = -6, z = 3$

Linear Systems (E)

Solve each system of equations.

1. $a+5v-3y=6$
   $a+v=-2$
   $-6a=24$

2. $-5u-v+2y=-14$
   $u-v=10$
   $5u=30$

3. $-3c-4y-4z=22$
   $3c+3y=3$
   $3c=18$

4. $b+5v-x=-18$
   $-3b+2v=-5$
   $6b=-6$

5. $3c-x-4z=-1$
   $5c+6x=27$
   $-c=-3$

6. $5a+2y+z=27$
   $-6a+6y=-30$
   $-a=-6$

7. $-4b-6c+6u=24$
   $-6b-2c=36$
   $-2b=12$

8. $4b+6x-5z=17$
   $-2b+x=8$
   $5b=-5$

Linear Systems (E) Answers

Solve each system of equations.

1. $a+5v-3y=6$
   $a+v=-2$
   $-6a=24$
   $a=-4, v=2, y=0$

2. $-5u-v+2y=-14$
   $u-v=10$
   $5u=30$
   $u=6, v=-4, y=6$

3. $-3c-4y-4z=22$
   $3c+3y=3$
   $3c=18$
   $c=6, y=-5, z=-5$

4. $b+5v-x=-18$
   $-3b+2v=-5$
   $6b=-6$
   $b=-1, v=-4, x=-3$

5. $3c-x-4z=-1$
   $5c+6x=27$
   $-c=-3$
   $c=3, x=2, z=2$

6. $5a+2y+z=27$
   $-6a+6y=-30$
   $-a=-6$
   $a=6, y=1, z=-5$

7. $-4b-6c+6u=24$
   $-6b-2c=36$
   $-2b=12$
   $b=-6, c=0, u=0$

8. $4b+6x-5z=17$
   $-2b+x=8$
   $5b=-5$
   $b=-1, x=6, z=3$

Linear Systems (F)

Solve each system of equations.

1. $-5v+2x+3z=13$
   $-4v-3x=20$
   $2v=-10$

2. $-a-b-3u=6$
   $5a+b=-10$
   $2a=-2$

3. $4c-6u-2x=14$
   $-4c+6u=-16$
   $-2c=-2$

4. $-4c+3v+6z=10$
   $4c-5v=30$
   $c=5$

5. $-3b+4x-6y=-21$
   $-b+5x=3$
   $3b=-9$

6. $3c-6y+6z=-18$
   $-4c-4y=36$
   $-6c=24$

7. $-3b+6v-5y=76$
   $-2b-4v=-14$
   $2b=-10$

8. $-2c-2v-4z=-12$
   $4c-6v=14$
   $5c=-5$

Linear Systems (F) Answers

Solve each system of equations.

1. $-5v+2x+3z=13$
$-4v-3x=20$
$2v=-10$
$v=-5, x=0, z=-4$

2. $-a-b-3u=6$
$5a+b=-10$
$2a=-2$
$a=-1, b=-5, u=0$

3. $4c-6u-2x=14$
$-4c+6u=-16$
$-2c=-2$
$c=1, u=-2, x=1$

4. $-4c+3v+6z=10$
$4c-5v=30$
$c=5$
$c=5, v=-2, z=6$

5. $-3b+4x-6y=-21$
$-b+5x=3$
$3b=-9$
$b=-3, x=0, y=5$

6. $3c-6y+6z=-18$
$-4c-4y=36$
$-6c=24$
$c=-4, y=-5, z=-6$

7. $-3b+6v-5y=76$
$-2b-4v=-14$
$2b=-10$
$b=-5, v=6, y=-5$

8. $-2c-2v-4z=-12$
$4c-6v=14$
$5c=-5$
$c=-1, v=-3, z=5$

Linear Systems (G)

Solve each system of equations.

1. $-3b-2y-z=-17$
   $3b+5y=29$
   $-5b=-15$

2. $-4v+6x-2z=-44$
   $-5v-3x=0$
   $-5v=-15$

3. $-5a-6u+3v=-8$
   $5a+5u=0$
   $3a=-15$

4. $3a+3b-u=34$
   $-2a-5b=-35$
   $-a=-5$

5. $-6a+6c+5u=-27$
   $-2a+3c=-2$
   $-3a=-12$

6. $3a-c-6z=-16$
   $5a-2c=-17$
   $-6a=18$

7. $2a+5v+x=-27$
   $5a+4v=-38$
   $2a=-12$

8. $2c-3v+y=-24$
   $-c-4v=-18$
   $6c=-12$

Linear Systems (G) Answers

Solve each system of equations.

1. $-3b-2y-z=-17$
$3b+5y=29$
$-5b=-15$
$b=3, y=4, z=0$

2. $-4v+6x-2z=-44$
$-5v-3x=0$
$-5v=-15$
$v=3, x=-5, z=1$

3. $-5a-6u+3v=-8$
$5a+5u=0$
$3a=-15$
$a=-5, u=5, v=-1$

4. $3a+3b-u=34$
$-2a-5b=-35$
$-a=-5$
$a=5, b=5, u=-4$

5. $-6a+6c+5u=-27$
$-2a+3c=-2$
$-3a=-12$
$a=4, c=2, u=-3$

6. $3a-c-6z=-16$
$5a-2c=-17$
$-6a=18$
$a=-3, c=1, z=1$

7. $2a+5v+x=-27$
$5a+4v=-38$
$2a=-12$
$a=-6, v=-2, x=-5$

8. $2c-3v+y=-24$
$-c-4v=-18$
$6c=-12$
$c=-2, v=5, y=-5$

Linear Systems (H)

Solve each system of equations.

1. $-4a+3x+5z=-29$
   $-4a+4x=4$
   $-5a=-10$

2. $3a+b+5z=6$
   $3a-b=-17$
   $a=-6$

3. $5b+x+2y=1$
   $6b-4x=-2$
   $-2b=-2$

4. $4a-5b-2x=-24$
   $6a+4b=28$
   $5a=10$

5. $-4u+v-3x=-12$
   $u+3v=-17$
   $6u=-12$

6. $-6c+6u-6y=66$
   $-5c+u=21$
   $-5c=20$

7. $c+u+5v=22$
   $5c-3u=-6$
   $c=0$

8. $a-6b-6v=5$
   $6a+4b=-6$
   $5a=-5$

Linear Systems (H) Answers

Solve each system of equations.

1. $-4a+3x+5z=-29$
$-4a+4x=4$
$-5a=-10$
$a=2, x=3, z=-6$

2. $3a+b+5z=6$
$3a-b=-17$
$a=-6$
$a=-6, b=-1, z=5$

3. $5b+x+2y=1$
$6b-4x=-2$
$-2b=-2$
$b=1, x=2, y=-3$

4. $4a-5b-2x=-24$
$6a+4b=28$
$5a=10$
$a=2, b=4, x=6$

5. $-4u+v-3x=-12$
$u+3v=-17$
$6u=-12$
$u=-2, v=-5, x=5$

6. $-6c+6u-6y=66$
$-5c+u=21$
$-5c=20$
$c=-4, u=1, y=-6$

7. $c+u+5v=22$
$5c-3u=-6$
$c=0$
$c=0, u=2, v=4$

8. $a-6b-6v=5$
$6a+4b=-6$
$5a=-5$
$a=-1, b=0, v=-1$

Linear Systems (I)

Solve each system of equations.

1. $-6b+3v-6z=-6$
   $5b+6v=-49$
   $6b=-30$

2. $-4a+4u+4x=28$
   $-a-4u=0$
   $5a=-20$

3. $4b-6c-y=30$
   $-3b-2c=-1$
   $-6b=-18$

4. $2b+6c-y=2$
   $2b-4c=18$
   $5b=25$

5. $-2a+2y-2z=12$
   $a-6y=-33$
   $-3a=9$

6. $2c+5v+6y=-25$
   $3c+4v=-11$
   $c=3$

7. $2c-v+6y=13$
   $4c+5v=5$
   $c=5$

8. $4u+6x-3z=-18$
   $-4u-2x=10$
   $3u=0$

Linear Systems (I) Answers

Solve each system of equations.

1. $-6b+3v-6z=-6$
$5b+6v=-49$
$6b=-30$
$b=-5, v=-4, z=4$

2. $-4a+4u+4x=28$
$-a-4u=0$
$5a=-20$
$a=-4, u=1, x=2$

3. $4b-6c-y=30$
$-3b-2c=-1$
$-6b=-18$
$b=3, c=-4, y=6$

4. $2b+6c-y=2$
$2b-4c=18$
$5b=25$
$b=5, c=-2, y=-4$

5. $-2a+2y-2z=12$
$a-6y=-33$
$-3a=9$
$a=-3, y=5, z=2$

6. $2c+5v+6y=-25$
$3c+4v=-11$
$c=3$
$c=3, v=-5, y=-1$

7. $2c-v+6y=13$
$4c+5v=5$
$c=5$
$c=5, v=-3, y=0$

8. $4u+6x-3z=-18$
$-4u-2x=10$
$3u=0$
$u=0, x=-5, z=-4$

Linear Systems (J)

Solve each system of equations.

1. $a + 6c + 2x = -10$
   $-2a + 2c = 0$
   $-2a = 0$

2. $6a - 4v + y = 10$
   $a - 6v = -3$
   $-2a = -6$

3. $-3a - 5b - 6u = -34$
   $3a + b = 2$
   $-2a = -2$

4. $-6v + 4x - 5y = 28$
   $-2v + 5x = 31$
   $2v = -6$

5. $-6u + 2x + 6z = -16$
   $3u - 6x = 9$
   $3u = 15$

6. $4a + 3v + 3y = 23$
   $3a + 4v = 9$
   $a = -1$

7. $-5c - 5v + 3x = 12$
   $3c + v = 1$
   $-3c = -6$

8. $-3u + y - 6z = 10$
   $-u - 5y = -18$
   $5u = -10$

Linear Systems (J) Answers

Solve each system of equations.

1. $a+6c+2x=-10$
   $-2a+2c=0$
   $-2a=0$
   $a=0, c=0, x=-5$

2. $6a-4v+y=10$
   $a-6v=-3$
   $-2a=-6$
   $a=3, v=1, y=-4$

3. $-3a-5b-6u=-34$
   $3a+b=2$
   $-2a=-2$
   $a=1, b=-1, u=6$

4. $-6v+4x-5y=28$
   $-2v+5x=31$
   $2v=-6$
   $v=-3, x=5, y=2$

5. $-6u+2x+6z=-16$
   $3u-6x=9$
   $3u=15$
   $u=5, x=1, z=2$

6. $4a+3v+3y=23$
   $3a+4v=9$
   $a=-1$
   $a=-1, v=3, y=6$

7. $-5c-5v+3x=12$
   $3c+v=1$
   $-3c=-6$
   $c=2, v=-5, x=-1$

8. $-3u+y-6z=10$
   $-u-5y=-18$
   $5u=-10$
   $u=-2, y=4, z=0$