

Practice 5.2

1 $2j + k = 6$
 $j - k = 8$

2 $2j + 3k = 11$
 $2j - 5k = 3$

3 $3m + n = 30$
 $2m - n = 20$

4 $3x - y = 9$
 $2x - y = 7$

5 $5s - t = 12$
 $3s + t = 12$

6 $2b + c = 10$
 $2b - c = 6$

7 $3m - n = 7$
 $21m + 6n = -29$

8 $7a + b = 10$
 $2a + 3b = -8$

9 $2p + 5q = 4$
 $7p + 15q = 9$

Solve each system of linear equations using the substitution method.

10 $2j + k = 3$
 $k = j - 9$

11 $2h + 3k = 13$
 $h = 2k - 4$

12 $3m + b = 23$
 $m - b = 5$

13 $3h - k = 10$
 $h - k = 2$

14 $3s - t = 5$
 $s + 2t = 4$

15 $2x + y = 20$
 $3x + 4y = 40$

16 $3x + 2y = 0$
 $5x - 2y = 32$

17 $5x - y = 20$
 $4x + 3y = 16$

18 $3p + 4q = 3$
 $\frac{1}{2} + q = 3p$

Solve each system of linear equations using the elimination method or substitution method. Explain why you choose each method.

19 $2x + 7y = 32$
 $4x - 5y = -12$

20 $3x + 3y = 22$
 $3x - 2y = 7$


21 $7m + 2n = 20$
 $2m = 3n - 5$

22 $3h - 4k = 35$
 $k = 2h - 20$

23 $2h + 7k = 32$
 $3h - 2k = -2$

24 $2m + 4 = 3n$
 $5m - 3n = -1$

Solve.

- 25  *Math Journal* Sam solves the following system of linear equations by the elimination method, without using calculator.

$$2x + 3y = 1$$

$$3x - 17y = 23$$

He can multiply the first equation by 3 and the second equation by 2 in order to eliminate x . Or he can eliminate y by multiplying the first equation by 17 and the second equation by 3. Which way should Sam choose? Explain.