

Heatherwood Mathletes  
Blue Belt Home Exercises  
December 2, 2004

## Algebra Practice Problems

Name: \_\_\_\_\_

Date: \_\_\_\_\_

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Worksheet generated at **www.math.com**

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1.)  $10 + x + 7x = 26$

2.)  $9 + 7x + 7x = 79$

3.)  $4x + 2 + 7x = 90$

4.)  $6 + 6x + 5x = 138$

5.)  $10 + 4x + 6x = 10$

6.)  $4(3x + 8) = 128$

7.)  $6(2 + 5x) = 372$

8.)  $2(4x + 1) = 18$

9.)  $4(2 + 6x) = 80$

10.)  $5(10 + 3x) = 80$

## Algebra Practice Problems

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1.) 
$$\begin{aligned} 5x + y &= 37 \\ -5x + 2y &= -31 \end{aligned}$$

2.) 
$$\begin{aligned} 3x + 2y &= 4 \\ 2x + 2y &= 4 \end{aligned}$$

3.) 
$$\begin{aligned} x + 2y &= 20 \\ x + 5y &= 38 \end{aligned}$$

4.) 
$$\begin{aligned} 4x + y &= 21 \\ 4x + 2y &= 30 \end{aligned}$$

5.) 
$$\begin{aligned} 5x + 3y &= 50 \\ 4x - 3y &= 40 \end{aligned}$$

6.) 
$$\begin{aligned} 5x + 4y &= 9 \\ -5x + y &= -4 \end{aligned}$$

7.) 
$$\begin{aligned} 2x + y &= 10 \\ 5x - y &= 18 \end{aligned}$$

8.) 
$$\begin{aligned} 5x + y &= 42 \\ 4x - y &= 21 \end{aligned}$$

9.) 
$$\begin{aligned} 2x + 5y &= 12 \\ -2x + 5y &= -12 \end{aligned}$$

10.) 
$$\begin{aligned} x + 4y &= 26 \\ x + 3y &= 21 \end{aligned}$$

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## Division

(Answer ID # 1012329)

**Divide.**

1. $4 \overline{)26}$	2. $9 \overline{)234}$	3. $9 \overline{)572}$	4. $8 \overline{)64}$
5. $6 \overline{)52}$	6. $5 \overline{)280}$	7. $7 \overline{)460}$	8. $2 \overline{)53}$
9. $6 \overline{)782}$	10. $6 \overline{)84}$	11. $8 \overline{)544}$	12. $9 \overline{)448}$
13. $8 \overline{)932}$	14. $4 \overline{)64}$	15. $8 \overline{)646}$	16. $9 \overline{)63}$

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## Fractions

(Answer ID # 0131911)

**Divide. Write the answer in simplest form.**

1. $8\frac{3}{5} \div \frac{1}{6}$	2. $\frac{4}{7} \div 5$	3. $11\frac{2}{3} \div 9$
4. $\frac{7}{9} \div 3\frac{1}{2}$	5. $10\frac{5}{7} \div \frac{4}{6}$	6. $7 \div 4\frac{1}{9}$
7. $1\frac{7}{8} \div \frac{1}{4}$	8. $11\frac{1}{5} \div \frac{4}{8}$	9. $3\frac{2}{4} \div \frac{5}{12}$
10. $1\frac{2}{3} \div \frac{14}{19}$	11. $12\frac{8}{11} \div 5\frac{10}{14}$	12. $4 \div 2\frac{11}{19}$
13. $3\frac{1}{2} \div 5$	14. $10 \div \frac{5}{9}$	15. $11\frac{6}{14} \div \frac{1}{2}$
16. $4\frac{6}{15} \div \frac{2}{5}$	17. $1\frac{7}{13} \div 2$	18. $11\frac{5}{6} \div 9\frac{1}{2}$
19. $4 \div \frac{2}{3}$	20. $\frac{14}{19} \div 1$	21. $10 \div \frac{5}{6}$
22. $12 \div \frac{3}{4}$	23. $3\frac{6}{13} \div 5$	24. $8\frac{1}{4} \div 4\frac{1}{3}$

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## Fractions

(Answer ID # 0492851)

**Multiply. Write the answer in simplest form.**

1. $1\frac{5}{8} \cdot 8\frac{4}{6}$	2. $\frac{1}{7} \cdot 6\frac{6}{9}$	3. $10\frac{2}{4} \cdot 5\frac{4}{5}$
4. $\frac{1}{3} \cdot 4\frac{1}{2}$	5. $3\frac{1}{2} \cdot \frac{2}{3}$	6. $11\frac{3}{4} \cdot \frac{5}{6}$
7. $2\frac{9}{12} \cdot \frac{3}{5}$	8. $7\frac{2}{7} \cdot 12\frac{4}{8}$	9. $\frac{12}{17} \cdot 9\frac{1}{11}$
10. $\frac{5}{8} \cdot 2\frac{1}{2}$	11. $6\frac{6}{7} \cdot 3\frac{8}{9}$	12. $9\frac{4}{18} \cdot \frac{18}{19}$
13. $\frac{1}{3} \cdot 10\frac{2}{6}$	14. $\frac{9}{11} \cdot 11\frac{3}{5}$	15. $5\frac{7}{15} \cdot \frac{6}{14}$
16. $7\frac{1}{4} \cdot \frac{4}{10}$	17. $1\frac{8}{9} \cdot 12\frac{5}{6}$	18. $4\frac{1}{4} \cdot 8\frac{4}{5}$
19. $\frac{2}{8} \cdot 9\frac{5}{7}$	20. $2\frac{13}{19} \cdot \frac{10}{15}$	21. $1\frac{6}{11} \cdot 5\frac{8}{10}$
22. $6\frac{1}{3} \cdot 4\frac{1}{2}$	23. $12\frac{18}{19} \cdot \frac{2}{5}$	24. $\frac{7}{12} \cdot 8\frac{3}{4}$

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## Fractions

(Answer ID # 0672692)

**Complete. Write your answer as a mixed number in simplest form.**

1. $\frac{1}{2} - \frac{1}{6} =$	2. $2\frac{2}{3} + 4\frac{1}{2} =$	3. $1\frac{6}{8} + \frac{1}{2} =$	4. $3\frac{5}{7} - 2\frac{1}{2} =$
5. $5\frac{2}{4} - 1\frac{3}{6} =$	6. $4\frac{3}{5} + 3\frac{5}{10} =$	7. $6\frac{2}{3} - 6\frac{1}{2} =$	8. $2\frac{1}{2} + 5\frac{1}{5} =$
9. $3\frac{4}{9} - 1\frac{1}{2} =$	10. $6\frac{1}{3} + 2\frac{6}{9} =$	11. $4\frac{3}{4} + 6\frac{7}{12} =$	12. $\frac{5}{10} - \frac{2}{3} =$
13. $1\frac{4}{7} + 4\frac{1}{2} =$	14. $\frac{7}{8} - \frac{2}{4} =$	15. $2\frac{5}{6} - 1\frac{1}{3} =$	16. $3\frac{1}{2} + 4\frac{3}{5} =$
17. $1\frac{1}{7} + \frac{1}{2} =$	18. $\frac{7}{8} - \frac{1}{4} =$	19. $6\frac{2}{4} - 2\frac{5}{6} =$	20. $3\frac{4}{5} + 1\frac{1}{2} =$
21. $2\frac{5}{9} + 6\frac{2}{3} =$	22. $4\frac{8}{12} - 4\frac{3}{6} =$	23. $5\frac{2}{3} + 2\frac{7}{9} =$	24. $3\frac{5}{6} - \frac{3}{9} =$
25. $5\frac{1}{2} - 3\frac{5}{6} =$	26. $6\frac{1}{3} + 1\frac{1}{2} =$	27. $1\frac{2}{4} - \frac{1}{2} =$	28. $4\frac{3}{9} + 4\frac{1}{6} =$
29. $\frac{5}{7} + 1\frac{1}{2} =$	30. $2\frac{1}{5} - 1\frac{7}{10} =$	31. $4\frac{7}{8} - 2\frac{2}{4} =$	32. $3\frac{3}{9} + 5\frac{1}{2} =$
33. $6\frac{1}{2} - \frac{6}{7} =$	34. $1\frac{6}{7} + 4\frac{1}{2} =$	35. $\frac{5}{8} - \frac{1}{4} =$	36. $2\frac{2}{5} + 3\frac{1}{2} =$
37. $\frac{3}{4} + \frac{1}{2} =$	38. $4\frac{1}{3} - 1\frac{1}{2} =$	39. $2\frac{3}{6} - 1\frac{3}{9} =$	40. $1\frac{6}{7} + 3\frac{1}{2} =$

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## Algebra

(Answer ID # 1024474)

**Complete.**

<p>1. A number is ten less than five times another number. Their sum is two hundred six. What are the numbers?</p>	<p>2. A number is one less than three times another number. Their difference is fifty-one. What are the numbers?</p>
<p>3. The sum of two numbers is sixty-five. Their difference is forty-three. What are the numbers?</p>	<p>4. A number is two times as large as another number. Four times the smaller number is thirty-three more than the smaller number. What are the numbers?</p>

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## Algebra

(Answer ID # 0144943)

**Complete.**

<p>1. The sum of two numbers is 201. Three times the smaller number plus forty-nine is the larger number. What are the numbers?</p>	<p>2. One number is eighty-two less than nine times another number. If each number were multiplied by four, their difference would be 248. What are the numbers?</p>
<p>3. The larger of two numbers is eleven more than four times the smaller number. The larger number is also fifty-four more than three times the smaller number. What are the numbers?</p>	<p>4. Three times the sum of two numbers is 42. Four times the sum of the same two numbers is 56. The difference of the two numbers is 8. What are the numbers?</p>