

# Algebra

## Summer Math Packet

Completion of the summer math packet is a GAC requirement and will serve as preparation for your first math quiz. You must show all the work and steps for solving the problems.

**Due Date: August 5, 2024**

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

# Summer Work Requirements for Algebra 1

Resource	Website	What To Do
<p style="text-align: center;"><b>*Required</b></p> <p>200 Summer math packet problems (last 25 are bonus)</p>	<p>MyGAC Resource Page - Summer Academics</p>	<p>Turn in completed packet the first day of school.</p>
<p style="text-align: center;"><b>*Optional IXL</b></p> <p>Students who are new to GAC should email Mr. Robert Moloney &lt;<a href="mailto:rmoloney@GAC.org">rmoloney@GAC.org</a>&gt; to set up an IXL account</p>	<p><a href="https://www.ixl.com/signin/atlanta">https://www.ixl.com/signin/atlanta</a></p>	<p>Working 15 minutes a week in the math section helps build math skills.</p>

**You will also have a timed test on your multiplication and Division Facts the first week of School. YOU WILL ONLY HAVE 5 MINUTES TO COMPLETE EACH TEST. The final 4 pages of the packet will help you prepare.**

This Packet is designed to be completed over time and in small chunks. Below is a sample of week's workload:

Monday	Tuesday	Wednesday	Thursday	Friday
10-15 Problems in the packet	10 minutes Multiplication	10-15 Problems in the packet	10 minutes Division	Off/Optional Work

### Other Suggestions for Summer Math Experiences:

- Budget part of a trip or a Saturday outing using integers for debits and breaking out cost per item
- Estimate the cost of groceries
- Ask your child to find examples of math throughout the day. You'd be surprised where it might turn up!

### Students who perform well on quantitative reasoning tests are able to:

- Read and identify mathematical information that is relevant in a problem.
- Interpret and analyze mathematical information presented.
- Select appropriate methods and apply them to solving problems.

### How to help your child develop quantitative reasoning skills at home:

- Adjust ingredients in a recipe by  $\frac{1}{2}$  or double
- Encourage sports enthusiasts to keep track of scores/statistics
- Determine the price of an item on sale (using percent off)
- Build and manage a budget

## Algebra Summer Packet

Evaluate each expression.

1)  $(-5) - (-4)$

2)  $(-8) + (-8)$

Example : Remember to change all subtraction problems to addition. Keep, Change to +, Take the opposite of the second number

$$(-5) + 4 = -1$$

3)  $(-6) + (-7)$

4)  $8 + (-4)$

5)  $(-5) + (-6)$

6)  $(-1) - 7$

7)  $2 - 6$

8)  $(-4) + 2$

9)  $(-8) - (-6)$

10)  $3 - (-3)$

11)  $5 + (-5)$

12)  $5 - 7$

$13) 8 - 6$

$14) 3 + (-7)$

$15) (-6) - (-1)$

$16) 3 - (-1) + (-3)$

$17) (-6) - 2 + 2$

$18) (-4) - 2 - 2$

$19) 6 - 8 + 4$

$20) 2 + (-3) + (-4)$

Find each product.

$21) (-12)(11)$

Example: Remember your rule chart (to the right)

$-12 \cdot 11 = -132$

$22) (-10)(12)$

Matching Signs

<b>P</b>	<b>N</b>	<b>N</b>
<b>N</b>	<b>P</b>	<b>N</b>
<b>N</b>	<b>N</b>	<b>P</b>

$23) (-14)(-6)$

$24) (-9)(13)$

$$25) (-8)(9)$$

$$26) (-9)(2)$$

$$27) (-3)(-2)$$

$$28) (4)(-8)$$

$$29) (6)(-9)$$

$$30) (-2)(4)$$

$$31) (-3)(-8)(9)$$

$$32) (2)(-4)(-10)$$

$$33) (-3)(-9)(4)$$

$$34) (-3)(-4)(-10)$$

$$35) (9)(-1)(6)$$

<b>P</b>	<b>N</b>	<b>N</b>
<b>N</b>	<b>P</b>	<b>N</b>
<b>N</b>	<b>N</b>	<b>P</b>

Find each quotient.

$$36) \frac{10}{-5}$$

Example: The same rules for multiplying integers applies to division.

$$37) \frac{-56}{-7}$$

$$10 \div (-5) = -2$$

$$38) \frac{-20}{5}$$

$$39) \frac{45}{-15}$$

$$40) \frac{-165}{11}$$

$$41) \frac{-66}{6}$$

$$42) \frac{-154}{-14}$$

$$43) \frac{-10}{5}$$

$$44) \frac{14}{-7}$$

$$45) \frac{-195}{-15}$$

46)  $\frac{65}{-5}$

47)  $\frac{-56}{4}$

48)  $\frac{-15}{15}$

49)  $\frac{44}{-4}$

50)  $\frac{33}{-3}$

Find each product.

51)  $-\frac{4}{5} \cdot \frac{5}{2}$

Example: Method 1

Multiply the Numerators

$$-4 \cdot 5 = -20$$

Multiply the Denominators

$$5 \cdot 2 = 10$$

$$\text{Simplify} = -20/10 = -2$$

53)  $-\frac{8}{5} \cdot -\frac{1}{4}$

Example Method 2:

Cross reduce:

-4 and 2 can be simplified to -2 and 1. 5 and 5 can simplify to 1

$$-2/1 \cdot 1/1.$$

Now follow Method 1.

52)  $-\frac{8}{5} \cdot -\frac{7}{4}$

54)  $2 \cdot -\frac{9}{5}$

$$55) -\frac{16}{5} \cdot \frac{13}{4}$$

$$56) -2 \cdot \frac{5}{3}$$

$$57) \frac{13}{12} \times -\frac{1}{4}$$

$$58) -\frac{11}{6} \times -\frac{1}{4}$$

$$59) \frac{2}{3} \times -\frac{2}{3}$$

$$60) \frac{4}{3} \times -\frac{9}{7}$$

Find each quotient.

$$61) \frac{-\frac{3}{5}}{-\frac{5}{3}}$$

Example: Remember you have to multiply by the reciprocal (flip the fraction).

$$-3/5 \cdot -3/5 = 9/25$$

Simplify if possible.

$$62) \frac{\frac{15}{4}}{-\frac{11}{3}}$$

$$63) \frac{\frac{4}{5}}{\frac{9}{10}}$$

$$64) \frac{-\frac{15}{7}}{\frac{31}{7}}$$



$$65) \frac{\frac{1}{6}}{\frac{13}{10}}$$

$$66) \frac{\frac{1}{9}}{-\frac{7}{7}}$$

$$67) \frac{\frac{13}{7}}{-\frac{1}{4}}$$

$$68) \frac{\frac{2}{7}}{-\frac{6}{6}}$$

$$69) \frac{\frac{3}{2}}{-\frac{8}{5}}$$

$$70) \frac{-\frac{8}{13}}{-\frac{3}{2}}$$

Evaluate each expression.

71)  $(5)(3) - 12$  Example: Remember to follow the order of operations

$$(5)(3) - 12$$

$$15 - 12$$

3

72)  $1 + \frac{42}{14}$

73)  $15 - \frac{33}{-11}$

74)  $9 - 8 - 10$

**ORDER OF OPERATIONS**

- (P) **Parenthesis**
- E<sup>x</sup> **Exponents**
- M/D **Multiply or Divide**  
\*from left to right in the problem
- A/S **Add or Subtract**  
\*from left to right  
\*of course

**ORDER OF OPERATIONS**

- (P) **Parenthesis**  
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\*from left to right  
\*of course

75)  $11 - (12 - 14)$

76)  $-\frac{42}{(-9) + 2}$

77)  $9 - (11 + 12)$

78)  $\left(\frac{-5}{-5}\right) - (-13)$

79)  $14 + (-15) - (-13)$

80)  $12 + 9 - 1$

81)  $12^2 + -1 - 13$

82)  $((2)(12))(-11 - -13)$

83)  $2 - \frac{(-30)(2)}{-4}$

Example: Remember when the division line extends across two number there is another set of parenthesis around the top and bottom.

84)  $(11)(-4) - 4 - 1$

$$2 - ((-30)(2)) / (-4)$$

$$2 - (-60) / (-4)$$

$$2 - 15$$

$$\mathbf{-13}$$

85)  $(-5)(-7 - -8) - 15$

86)  $13 + \frac{(7)(5)}{-7}$

**ORDER OF OPERATIONS**

- (P) **Parenthesis**  
E<sup>x</sup> **Exponents**  
M/D **Multiply or Divide**  
*\*from left to right in the problem*  
A/S **Add or Subtract**  
*\*from left to right*  
*\*of course*

87)  $12 - (-8)(1 - -4)$

88)  $\frac{3}{-1} - (-8)(-4)$

89)  $-1 + 13 - -6 - 5$

90)  $-\frac{(15)(2)}{2}$

91)  $-\frac{(21)(3)}{4 + 6 - 3}$

92)  $(-3)(9) + 7 + 7 + 9$

93)  $\frac{(-4) + 3}{7 - (10 - 2)}$

94)  $-\frac{(12)(2)}{2 - 9 + 3}$

95)  $\left(\frac{-24}{-4}\right) - ((-9) + (-2) - (-10))$

96)  $\frac{(3)(2)}{-3}$

97)  $\frac{19 - (13 - 10)}{4 - 2}$

98)  $(7)(5) - 1 - 7 - (-5)$

**ORDER OF OPERATIONS**

- (P) **Parenthesis**  
E<sup>x</sup> **Exponents**  
M/D **Multiply or Divide**  
\*from left to right in the problem  
A/S **Add or Subtract**  
\*from left to right  
\*of course

99)  $\frac{(10)(2)}{10}$

100)  $\left(\frac{-9}{-1}\right)\left(-\frac{8}{2}\right) - 4$

101)  $((-5) - (-7))(8 - 9) - (8 - 1)$

102)  $\frac{2^2}{4} + 6^2$

103)  $\frac{(-30) - 9 + 3}{8 - 9 - 3}$

104)  $(-7) + 9 - \left(-\frac{27}{9}\right)(3 + 5)$

105)  $-\frac{28}{(-1) - (3 - (-5)) - (-9) - 4}$

106)  $\frac{(-7) \times 3}{(-7)(5 - 4)}$

107)  $8^2 - 10 - ((-9)^2 - (-1))$

108)  $8 - 1 - \frac{9 \times 3 \times 2}{-9}$

109)  $(6 - 10 + (5 - 6) \times 5) \times (-8)$

110)  $\frac{((-13) - 2) \times 2}{-3} + (-4) + 2$

Solve each proportion.

111)  $\frac{2}{x} = \frac{4}{5}$  Example:  $\frac{a}{b} = \frac{c}{d}$   
Step 1: Cross multiply  $ad = bc$   
 $10 = 4x$

Step 2: Solve for the variable

$$\frac{10}{4} = \frac{4x}{4}$$

$$x = 2.5 \text{ or } \frac{5}{2}$$

112)  $\frac{3}{9} = \frac{5b}{7}$

113)  $\frac{2}{10} = \frac{p}{9}$

114)  $\frac{9}{5} = \frac{8}{4n}$

115)  $\frac{v}{10} = \frac{2}{8}$

116)  $\frac{3}{9} = \frac{4}{x}$

117)  $\frac{10}{7} = \frac{k}{4}$

Solve each equation.

118)  $-3 = 11 + x$

119)  $p - 6 = 4$

$$-3 = 11 + x$$

$$\frac{-11 \quad -11}{-14 = x}$$

$$120) 16 = \frac{n}{14}$$

$$121) n + 17 = 16$$

$$122) 9 + n = 7$$

$$123) x + (-14) = -32$$

$$124) -8 - x = -12$$

$$125) 10 + p = 12$$

$$126) \frac{v}{7} = 7$$

$$127) -14 + k = 2$$

**ORDER OF OPERATIONS**

- (P) **Parenthesis**
- E<sup>x</sup> **Exponents**
- M/D **Multiply or Divide**  
\*from left to right in the problem
- A/S **Add or Subtract**  
\*from left to right  
\*of course

$$128) \frac{n}{19} = 9$$

$$129) \frac{x}{2} + 12 = 15$$

Example: Remember to start solving from the bottom of PEMDAS

$$1) \frac{x}{2} + 12 = 15 \quad 2) \frac{x}{2} = 3 \quad 3) x = 6$$

-12   -12

Subtract the Constant

Multiply by the reciprocals

$$130) -8 + \frac{b}{14} = -7$$

$$131) \frac{n}{22} - 5 = -4$$

$$132) 4 = \frac{12 + r}{3}$$

$$133) 1 = \frac{x + 11}{4}$$

$$134) \frac{k}{6} - 10 = -11$$

$$135) 5 = \frac{x}{3} + 7$$

$$136) 31 = 2a + 7$$

$$137) -78 = 3 + 9n$$

$$138) \frac{k - 1}{2} = -10$$

$$139) \frac{n}{22} + 1 = 2$$

Evaluate each using the values given.

$$140) j^2 + j + h; \text{ use } h = 7, \text{ and } j = 3$$

$$141) (y)(y + x) - x; \text{ use } x = 9, \text{ and } y = 2$$

Example: Plug in the given values and solve the equation using the order of operations:

$$3^2 + 3 + 7$$

$$9 + 3 + 7$$

19

$$142) (p)(m - p^2); \text{ use } m = 9, \text{ and } p = 2$$

143)  $4 - \left(x + \frac{y}{4}\right)$ ; use  $x = 1$ , and  $y = 8$

144)  $(y)\left(y - \frac{x}{6}\right)$ ; use  $x = 6$ , and  $y = 6$

145)  $(x)(x - y)^2$ ; use  $x = 4$ , and  $y = 1$

146)  $x - y - \frac{2}{2}$ ; use  $x = -10$ , and  $y = -9$

147)  $-7(y - (x - x))$ ; use  $x = -9$ , and  $y = 9$

148)  $n + m(-2 + n)$ ; use  $m = 3$ , and  $n = -6$

149)  $\frac{m}{3}(n - 9)$ ; use  $m = 9$ , and  $n = -4$

150)  $b - \frac{b}{3} - a$ ; use  $a = 7$ , and  $b = 3$

151)  $m + 3 - 9 - n$ ; use  $m = -1$ , and  $n = -6$

152)  $p + p - (m + p)$ ; use  $m = -6$ , and  $p = 5$

153)  $\frac{b}{6} + \frac{c}{4}$ ; use  $b = 6$ , and  $c = 4$

154)  $-9(y - x) + y$ ; use  $x = -7$ , and  $y = 2$



$155) 15(m - p); \text{ use } m = -2, \text{ and } p = 3$

$156) j(h - (j + j)); \text{ use } h = 10, \text{ and } j = 2$

Simplify each expression.

$$157) -10(1 + 6n) \quad \begin{array}{l} \text{Example: Distribute the like below} \\ a(b + c) = ab + ac \\ -10(1 + 6n) = -10(1) + (-10)(6n) \\ \quad \quad \quad -10 - 60n \end{array} \quad 158) -3(1 - 9r)$$

$159) 5(x - 10)$

$160) -7(1 - 10r)$

$161) 9(5 + 7a)$

$162) 3x(8x + 10) \quad \begin{array}{l} \text{Example: Remember your product law} \\ x^2 \cdot x^5 = x^{(2+5)} = x^7 \end{array}$

$$3x(8x + 10) = (3x)(8x) + (3x)(10) \\ \quad \quad \quad 24x^2 + 30x$$

$163) 3x(5 + 6x)$

$164) -2(n + 8)$

$165) 4(1 + 10p)$

$166) 10(1 + 6n)$

$$167) -10(1 + 2b)$$

$$168) x - 4x$$

169)  $x + 10 + 4 - 6x$  Example: Combine Like Terms 170)  $n - 10n$   
Only combine number with  
 $x + 10 + 4 - 6x$  other numbers and the  
 $(10+4) + (x-6x)$  coefficients of the same variable  
 $14 - 5x$

$$171) p - 7 + 1 + 6p$$

$$172) -m + 4m$$

$$173) -5a + 10a$$

$$174) n + 2 + 1 + 2n$$

$$175) -4b - 5b$$

$$176) 8a - 2a$$

$$177) -4r + 3r$$

$$178) 1 - 10x - 6x$$

179)  $-4(5a + 5) - 5$  Example: Distribute then  
combine like terms

$$\begin{aligned} & -4(5a + 5) - 5 \\ & -20a - 20 - 5 \\ & -20a - 25 \end{aligned}$$

180)  $-6x + 8(9 + 8x)$

181)  $6(8x + 3) + 7$

182)  $8x - 3(3x + 5)$

183)  $6(1 + 6x) - 6x$

184)  $2(b - 4) + 6$

185)  $-2(1 - 3x) - 9$

186)  $-2(-3v + 1) + 2v$

187)  $-1 + 5(1 - 2n)$

188)  $-7(1 + 9x) - 3$

189)  $4(3 + m) + 10$

190)  $-3(1 - 4n) - 10(1 + 2n)$

191)  $-4(1 - 5m) - 8(10m - 3)$

192)  $-5(10n - 6) + 8(5n + 1)$

193)  $6(1 - 3m) - 6(-7m - 5)$

194)  $-5(-x + 5) - 8(x - 10)$

195)  $-8(6 + 4b) + 8(10 - b)$

196)  $2(7 + 6k) + 10(k + 10)$

197)  $7(-1 - 5r) - (-7 - 9r)$

198)  $6(-7 - 6m) + 7(5 + 7m)$

199)  $6(-9m + 2) + 3(5 + 7m)$

200)  $3(5 - 9r) - (4r - 10)$

Bonus Section: State if the first number is divisible by the second number.

201) 174 by 6

202) 168 by 6

Divisibility Rules	
A number is divisible by	
2	If last digit is 0, 2, 4, 6, or 8
3	If the sum of the digits is divisible by 3
4	If the last two digits is divisible by 4
5	If the last digit is 0 or 5
6	If the number is divisible by 2 and 3
7	cross off last digit, double it and subtract. Repeat if you want. If new number is divisible by 7, the original number is divisible by 7
8	If last 3 digits is divisible by 8
9	If the sum of the digits is divisible by 9
10	If the last digit is 0
11	Subtract the last digit from the number formed by the remaining digits. If new number is divisible by 11, the original number is divisible by 11
12	If the number is divisible by 3 and 4

203) 143 by 10

204) 112 by 2

205) 177 by 3

206) 189 by 9

207) 102 by 2

208) 120 by 10

Divisibility Rules	
A number is divisible by	
2	If last digit is 0, 2, 4, 6, or 8
3	If the sum of the digits is divisible by 3
4	If the last two digits is divisible by 4
5	If the last digit is 0 or 5
6	If the number is divisible by 2 and 3
7	cross off last digit, double it and subtract. Repeat if you want. If new number is divisible by 7, the original number is divisible by 7
8	If last 3 digits is divisible by 8
9	If the sum of the digits is divisible by 9
10	If the last digit is 0
11	Subtract the last digit from the number formed by the remaining digits. If new number is divisible by 11, the original number is divisible by 11
12	If the number is divisible by 3 and 4

209) 180 by 2

210) 191 by 2

211) 110 by 10

212) 140 by 10

213) 115 by 5

214) 117 by 3

215) 99 by 9

216) 181 by 10

217) 182 by 10

218) 190 by 10

219) 136 by 3

220) 138 by 6

221) 192 by 6

222) 126 by 9

223) 190 by 5

224) 108 by 9

225) 198 by 3

226) 188 by 6

Divisibility Rules	
A number is divisible by	
2	If last digit is 0, 2, 4, 6, or 8
3	If the sum of the digits is divisible by 3
4	If the last two digits is divisible by 4
5	If the last digit is 0 or 5
6	If the number is divisible by 2 and 3
7	cross off last digit, double it and subtract. Repeat if you want. If new number is divisible by 7, the original number is divisible by 7
8	If last 3 digits is divisible by 8
9	If the sum of the digits is divisible by 9
10	If the last digit is 0
11	Subtract the last digit from the number formed by the remaining digits. If new number is divisible by 11, the original number is divisible by 11
12	If the number is divisible by 3 and 4

## Division Facts (A)

Find each quotient.

$6 \div 3 =$

$9 \div 3 =$

$5 \div 5 =$

$25 \div 5 =$

$2 \div 2 =$

$42 \div 6 =$

$56 \div 7 =$

$6 \div 6 =$

$96 \div 8 =$

$16 \div 8 =$

$18 \div 3 =$

$45 \div 9 =$

$20 \div 2 =$

$120 \div 10 =$

$18 \div 2 =$

$60 \div 6 =$

$56 \div 8 =$

$32 \div 8 =$

$12 \div 2 =$

$24 \div 8 =$

$77 \div 11 =$

$7 \div 7 =$

$30 \div 5 =$

$8 \div 8 =$

$16 \div 4 =$

$66 \div 11 =$

$12 \div 3 =$

$30 \div 3 =$

$20 \div 5 =$

$72 \div 12 =$

$9 \div 1 =$

$14 \div 2 =$

$21 \div 3 =$

$12 \div 6 =$

$30 \div 6 =$

$63 \div 7 =$

$1 \div 1 =$

$9 \div 9 =$

$54 \div 9 =$

$108 \div 9 =$

$132 \div 12 =$

$28 \div 4 =$

$6 \div 1 =$

$10 \div 2 =$

$132 \div 11 =$

$36 \div 6 =$

$3 \div 3 =$

$12 \div 12 =$

$48 \div 6 =$

$36 \div 12 =$

$2 \div 1 =$

$24 \div 12 =$

$72 \div 6 =$

$8 \div 2 =$

$3 \div 1 =$

$24 \div 2 =$

$15 \div 3 =$

$36 \div 9 =$

$40 \div 8 =$

$22 \div 2 =$

$40 \div 10 =$

$36 \div 4 =$

$21 \div 7 =$

$35 \div 5 =$

$10 \div 10 =$

$40 \div 4 =$

$4 \div 1 =$

$7 \div 1 =$

$110 \div 11 =$

$24 \div 4 =$

$8 \div 1 =$

$48 \div 12 =$

$72 \div 8 =$

$121 \div 11 =$

$4 \div 2 =$

$36 \div 3 =$

$50 \div 10 =$

$63 \div 9 =$

$35 \div 7 =$

$72 \div 9 =$

$20 \div 10 =$

$144 \div 12 =$

$80 \div 8 =$

$80 \div 10 =$

$27 \div 3 =$

$108 \div 12 =$

$48 \div 8 =$

$24 \div 3 =$

$88 \div 8 =$

$16 \div 2 =$

$70 \div 10 =$

$64 \div 8 =$

$28 \div 7 =$

$33 \div 11 =$

$6 \div 2 =$

$120 \div 12 =$

$90 \div 10 =$

$10 \div 1 =$

$18 \div 9 =$

$32 \div 4 =$

## Division Facts (A) Answers

Find each quotient.

$6 \div 3 = 2$

$9 \div 3 = 3$

$5 \div 5 = 1$

$25 \div 5 = 5$

$2 \div 2 = 1$

$42 \div 6 = 7$

$56 \div 7 = 8$

$6 \div 6 = 1$

$96 \div 8 = 12$

$16 \div 8 = 2$

$18 \div 3 = 6$

$45 \div 9 = 5$

$20 \div 2 = 10$

$120 \div 10 = 12$

$18 \div 2 = 9$

$60 \div 6 = 10$

$56 \div 8 = 7$

$32 \div 8 = 4$

$12 \div 2 = 6$

$24 \div 8 = 3$

$77 \div 11 = 7$

$7 \div 7 = 1$

$30 \div 5 = 6$

$8 \div 8 = 1$

$16 \div 4 = 4$

$66 \div 11 = 6$

$12 \div 3 = 4$

$30 \div 3 = 10$

$20 \div 5 = 4$

$72 \div 12 = 6$

$9 \div 1 = 9$

$14 \div 2 = 7$

$21 \div 3 = 7$

$12 \div 6 = 2$

$30 \div 6 = 5$

$63 \div 7 = 9$

$1 \div 1 = 1$

$9 \div 9 = 1$

$54 \div 9 = 6$

$108 \div 9 = 12$

$132 \div 12 = 11$

$28 \div 4 = 7$

$6 \div 1 = 6$

$10 \div 2 = 5$

$132 \div 11 = 12$

$36 \div 6 = 6$

$3 \div 3 = 1$

$12 \div 12 = 1$

$48 \div 6 = 8$

$36 \div 12 = 3$

$2 \div 1 = 2$

$24 \div 12 = 2$

$72 \div 6 = 12$

$8 \div 2 = 4$

$3 \div 1 = 3$

$24 \div 2 = 12$

$15 \div 3 = 5$

$36 \div 9 = 4$

$40 \div 8 = 5$

$22 \div 2 = 11$

$40 \div 10 = 4$

$36 \div 4 = 9$

$21 \div 7 = 3$

$35 \div 5 = 7$

$10 \div 10 = 1$

$40 \div 4 = 10$

$4 \div 1 = 4$

$7 \div 1 = 7$

$110 \div 11 = 10$

$24 \div 4 = 6$

$8 \div 1 = 8$

$48 \div 12 = 4$

$72 \div 8 = 9$

$121 \div 11 = 11$

$4 \div 2 = 2$

$36 \div 3 = 12$

$50 \div 10 = 5$

$63 \div 9 = 7$

$35 \div 7 = 5$

$72 \div 9 = 8$

$20 \div 10 = 2$

$144 \div 12 = 12$

$80 \div 8 = 10$

$80 \div 10 = 8$

$27 \div 3 = 9$

$108 \div 12 = 9$

$48 \div 8 = 6$

$24 \div 3 = 8$

$88 \div 8 = 11$

$16 \div 2 = 8$

$70 \div 10 = 7$

$64 \div 8 = 8$

$28 \div 7 = 4$

$33 \div 11 = 3$

$6 \div 2 = 3$

$120 \div 12 = 10$

$90 \div 10 = 9$

$10 \div 1 = 10$

$18 \div 9 = 2$

$32 \div 4 = 8$





# Multiplication Facts to 144 (A) Answers

Find each product.

$\begin{array}{r} 5 \\ \times 8 \\ \hline 40 \end{array}$	$\begin{array}{r} 12 \\ \times 11 \\ \hline 132 \end{array}$	$\begin{array}{r} 12 \\ \times 4 \\ \hline 48 \end{array}$	$\begin{array}{r} 1 \\ \times 6 \\ \hline 6 \end{array}$	$\begin{array}{r} 7 \\ \times 5 \\ \hline 35 \end{array}$	$\begin{array}{r} 7 \\ \times 7 \\ \hline 49 \end{array}$	$\begin{array}{r} 5 \\ \times 11 \\ \hline 55 \end{array}$	$\begin{array}{r} 11 \\ \times 0 \\ \hline 0 \end{array}$	$\begin{array}{r} 0 \\ \times 7 \\ \hline 0 \end{array}$	$\begin{array}{r} 0 \\ \times 8 \\ \hline 0 \end{array}$
$\begin{array}{r} 11 \\ \times 8 \\ \hline 88 \end{array}$	$\begin{array}{r} 4 \\ \times 9 \\ \hline 36 \end{array}$	$\begin{array}{r} 11 \\ \times 1 \\ \hline 11 \end{array}$	$\begin{array}{r} 2 \\ \times 1 \\ \hline 2 \end{array}$	$\begin{array}{r} 11 \\ \times 12 \\ \hline 132 \end{array}$	$\begin{array}{r} 10 \\ \times 12 \\ \hline 120 \end{array}$	$\begin{array}{r} 7 \\ \times 8 \\ \hline 56 \end{array}$	$\begin{array}{r} 0 \\ \times 3 \\ \hline 0 \end{array}$	$\begin{array}{r} 6 \\ \times 11 \\ \hline 66 \end{array}$	$\begin{array}{r} 9 \\ \times 3 \\ \hline 27 \end{array}$
$\begin{array}{r} 5 \\ \times 6 \\ \hline 30 \end{array}$	$\begin{array}{r} 12 \\ \times 3 \\ \hline 36 \end{array}$	$\begin{array}{r} 6 \\ \times 12 \\ \hline 72 \end{array}$	$\begin{array}{r} 9 \\ \times 3 \\ \hline 27 \end{array}$	$\begin{array}{r} 4 \\ \times 8 \\ \hline 32 \end{array}$	$\begin{array}{r} 10 \\ \times 7 \\ \hline 70 \end{array}$	$\begin{array}{r} 12 \\ \times 1 \\ \hline 12 \end{array}$	$\begin{array}{r} 0 \\ \times 5 \\ \hline 0 \end{array}$	$\begin{array}{r} 12 \\ \times 12 \\ \hline 144 \end{array}$	$\begin{array}{r} 6 \\ \times 5 \\ \hline 30 \end{array}$
$\begin{array}{r} 5 \\ \times 4 \\ \hline 20 \end{array}$	$\begin{array}{r} 4 \\ \times 7 \\ \hline 28 \end{array}$	$\begin{array}{r} 9 \\ \times 6 \\ \hline 54 \end{array}$	$\begin{array}{r} 6 \\ \times 2 \\ \hline 12 \end{array}$	$\begin{array}{r} 8 \\ \times 9 \\ \hline 72 \end{array}$	$\begin{array}{r} 1 \\ \times 4 \\ \hline 4 \end{array}$	$\begin{array}{r} 4 \\ \times 11 \\ \hline 44 \end{array}$	$\begin{array}{r} 4 \\ \times 0 \\ \hline 0 \end{array}$	$\begin{array}{r} 5 \\ \times 9 \\ \hline 45 \end{array}$	$\begin{array}{r} 1 \\ \times 9 \\ \hline 9 \end{array}$
$\begin{array}{r} 7 \\ \times 11 \\ \hline 77 \end{array}$	$\begin{array}{r} 6 \\ \times 8 \\ \hline 48 \end{array}$	$\begin{array}{r} 1 \\ \times 7 \\ \hline 7 \end{array}$	$\begin{array}{r} 0 \\ \times 6 \\ \hline 0 \end{array}$	$\begin{array}{r} 10 \\ \times 10 \\ \hline 100 \end{array}$	$\begin{array}{r} 1 \\ \times 1 \\ \hline 1 \end{array}$	$\begin{array}{r} 2 \\ \times 8 \\ \hline 16 \end{array}$	$\begin{array}{r} 1 \\ \times 0 \\ \hline 0 \end{array}$	$\begin{array}{r} 2 \\ \times 10 \\ \hline 20 \end{array}$	$\begin{array}{r} 2 \\ \times 4 \\ \hline 8 \end{array}$
$\begin{array}{r} 4 \\ \times 12 \\ \hline 48 \end{array}$	$\begin{array}{r} 4 \\ \times 4 \\ \hline 16 \end{array}$	$\begin{array}{r} 12 \\ \times 5 \\ \hline 60 \end{array}$	$\begin{array}{r} 11 \\ \times 11 \\ \hline 121 \end{array}$	$\begin{array}{r} 2 \\ \times 9 \\ \hline 18 \end{array}$	$\begin{array}{r} 3 \\ \times 10 \\ \hline 30 \end{array}$	$\begin{array}{r} 1 \\ \times 3 \\ \hline 3 \end{array}$	$\begin{array}{r} 0 \\ \times 2 \\ \hline 0 \end{array}$	$\begin{array}{r} 7 \\ \times 12 \\ \hline 84 \end{array}$	$\begin{array}{r} 2 \\ \times 11 \\ \hline 22 \end{array}$
$\begin{array}{r} 0 \\ \times 12 \\ \hline 0 \end{array}$	$\begin{array}{r} 3 \\ \times 4 \\ \hline 12 \end{array}$	$\begin{array}{r} 10 \\ \times 1 \\ \hline 10 \end{array}$	$\begin{array}{r} 2 \\ \times 7 \\ \hline 14 \end{array}$	$\begin{array}{r} 1 \\ \times 5 \\ \hline 5 \end{array}$	$\begin{array}{r} 7 \\ \times 3 \\ \hline 21 \end{array}$	$\begin{array}{r} 4 \\ \times 6 \\ \hline 24 \end{array}$	$\begin{array}{r} 3 \\ \times 11 \\ \hline 33 \end{array}$	$\begin{array}{r} 3 \\ \times 5 \\ \hline 15 \end{array}$	$\begin{array}{r} 8 \\ \times 10 \\ \hline 80 \end{array}$
$\begin{array}{r} 7 \\ \times 5 \\ \hline 35 \end{array}$	$\begin{array}{r} 11 \\ \times 9 \\ \hline 99 \end{array}$	$\begin{array}{r} 8 \\ \times 8 \\ \hline 64 \end{array}$	$\begin{array}{r} 9 \\ \times 10 \\ \hline 90 \end{array}$	$\begin{array}{r} 3 \\ \times 6 \\ \hline 18 \end{array}$	$\begin{array}{r} 10 \\ \times 6 \\ \hline 60 \end{array}$	$\begin{array}{r} 6 \\ \times 5 \\ \hline 30 \end{array}$	$\begin{array}{r} 9 \\ \times 9 \\ \hline 81 \end{array}$	$\begin{array}{r} 7 \\ \times 9 \\ \hline 63 \end{array}$	$\begin{array}{r} 0 \\ \times 10 \\ \hline 0 \end{array}$
$\begin{array}{r} 2 \\ \times 3 \\ \hline 6 \end{array}$	$\begin{array}{r} 5 \\ \times 10 \\ \hline 50 \end{array}$	$\begin{array}{r} 6 \\ \times 7 \\ \hline 42 \end{array}$	$\begin{array}{r} 4 \\ \times 5 \\ \hline 20 \end{array}$	$\begin{array}{r} 11 \\ \times 10 \\ \hline 110 \end{array}$	$\begin{array}{r} 10 \\ \times 4 \\ \hline 40 \end{array}$	$\begin{array}{r} 6 \\ \times 6 \\ \hline 36 \end{array}$	$\begin{array}{r} 8 \\ \times 1 \\ \hline 8 \end{array}$	$\begin{array}{r} 10 \\ \times 2 \\ \hline 20 \end{array}$	$\begin{array}{r} 9 \\ \times 12 \\ \hline 108 \end{array}$
$\begin{array}{r} 8 \\ \times 12 \\ \hline 96 \end{array}$	$\begin{array}{r} 3 \\ \times 3 \\ \hline 9 \end{array}$	$\begin{array}{r} 3 \\ \times 8 \\ \hline 24 \end{array}$	$\begin{array}{r} 10 \\ \times 6 \\ \hline 60 \end{array}$	$\begin{array}{r} 5 \\ \times 5 \\ \hline 25 \end{array}$	$\begin{array}{r} 2 \\ \times 5 \\ \hline 10 \end{array}$	$\begin{array}{r} 2 \\ \times 12 \\ \hline 24 \end{array}$	$\begin{array}{r} 0 \\ \times 9 \\ \hline 0 \end{array}$	$\begin{array}{r} 2 \\ \times 10 \\ \hline 20 \end{array}$	$\begin{array}{r} 2 \\ \times 2 \\ \hline 4 \end{array}$