



# Mixed Problems



Review the multiplication and division patterns, then solve the problems below.

Multiplying by 2: Recognize that multiplying a number by 2 is just doubling that number. For example:  $2 \times 8 = 16$ . Another way to find out the answer to  $2 \times 8$  is to recognize that doubling 8 ( $8 + 8$ ) also equals 16.

Multiplying by 5: Any time you multiply a number by 5, the last digit in the answer must be either 5 or 0. If the last digit is anything other than a 5 or 0, it is wrong.

Dividing by 2: Recognize that dividing a number by 2 is just figuring out what half of the number is. For example: 6 divided by 2 = 3. Half of 6 is 3. You know this because  $3 + 3$  is 6. So, if you know half of 6 is 3, then you know how to divide by 2.

Multiplying by 3: Multiplying by 3 is easier than you think because of a certain pattern. When you multiply any number by 3, the digits of the answer must add up to a multiple of 3. For example,  $3 \times 4 = 12$ . If you add together the two digits of the answer, you get 3. That is because  $1 + 2 = 3$ .

$$2 \times 4 = \underline{8}, 2 \times 50 = \underline{100}, 2 \times 13 = \underline{26}, 2 \times 18 = \underline{36}, 2 \times 22 = \underline{44}, 2 \times 27 = \underline{54},$$

$$2 \times 47 = \underline{94}, 2 \times 32 = \underline{64}, 2 \times 41 = \underline{82}, 2 \times 28 = \underline{56}, 2 \times 45 = \underline{90}, 2 \times 39 = \underline{78}.$$

$$5 \times 7 = \underline{35}, 5 \times 11 = \underline{55}, 5 \times 12 = \underline{60}, 5 \times 14 = \underline{70}, 5 \times 17 = \underline{85}, 5 \times 18 = \underline{90},$$

$$5 \times 20 = \underline{100}, 5 \times 21 = \underline{105}, 5 \times 22 = \underline{110}, 5 \times 30 = \underline{150}, 5 \times 31 = \underline{155}, 5 \times 32 = \underline{160}.$$

$$6 \text{ divided by } 2 = \underline{3}, 12 \text{ divided by } 2 = \underline{6}, 14 \text{ divided by } 2 = \underline{7},$$

$$20 \text{ divided by } 2 = \underline{10}, 22 \text{ divided by } 2 = \underline{11}, 24 \text{ divided by } 2 = \underline{12},$$

$$30 \text{ divided by } 2 = \underline{15}, 40 \text{ divided by } 2 = \underline{20}, 50 \text{ divided by } 2 = \underline{25},$$

$$46 \text{ divided by } 2 = \underline{23}.$$

$$3 \times 4 = \underline{12}, 3 \times 11 = \underline{33}, 3 \times 12 = \underline{36}, 3 \times 13 = \underline{39}, 3 \times 20 = \underline{60}, 3 \times 21 = \underline{63},$$

$$3 \times 22 = \underline{66}, 3 \times 30 = \underline{90}, 3 \times 31 = \underline{93}, 3 \times 32 = \underline{96}, 3 \times 40 = \underline{120}, 3 \times 41 = \underline{123}.$$