Division Drills

Grades 4-6

Written & Illustrated by S&S Learning Materials

Two Methods for Mastering Long Division

1. **Traditional "Bring Down" Method (with 1-Digit Divisor)**

This procedure requires students to have memorized or be able to calculate the standard multiplication facts for factors 1 through 10. In this method, long division is broken down into a series of steps, each one calculating the number of times the divisor "goes into" each single digit of the multiple-digit dividend.

Example: $679 \div 5 = ?$

Begin by calculating the number of times the divisor (5) goes into the hundreds digit (6) of the dividend 679 [see calculation a)]. For each subsequent step, the next digit of the dividend is brought down, and the calculation is continued until the dividend has been reduced such that the divisor cannot be divided into it [calculations b), c) and d)].

2. **Modified Long Division Method (with 1-Digit Divisor)**

This procedure allows students to solve a long division problem in smaller, more manageable steps than those required for the traditional method. This method is especially useful for students who are experiencing **difficulty memorizing or calculating all of the multiplication facts from 1 through 10 as only the** multiplication facts for factors 1, 2, 5 and 10 are required. Each step in the modified method calculates the number of times (either 10, 5, 2 or 1) the divisor goes into the multiple-digit dividend.

Example: $132 \div 7 = ?$

Begin by calculating the number of times the divisor (7) goes into the dividend 132 using only a factor or 10, 5, 2 or 1 (i.e., 7 goes into 132 a total of 10 times since 10 x 7=70). Then, subtract 70 from the dividend (132-70= 62) [see calculation a)]. Continue the calculation until the dividend has been reduced such that the divisor cannot be divided into it [calculations b), c) and d)]. Complete the problem by finding the sum of all the factors used in the calculations (10+5+2+1=18) [calculation e)].

Skill:

Picture Division

Write a division fact for each picture.

Divide 8 cacti into groups of 4.
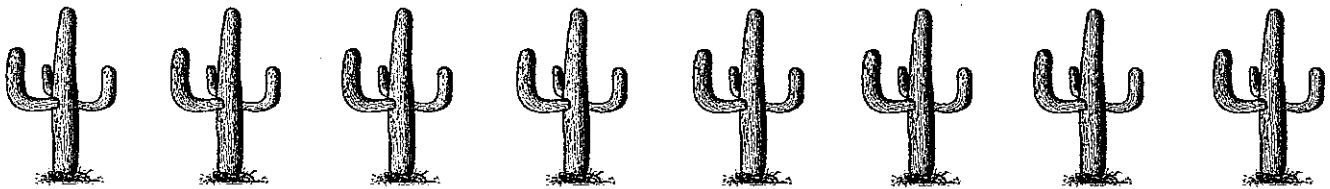
_____ groups $8 \div 4 =$ _____

Divide 12 basses into groups of 3.
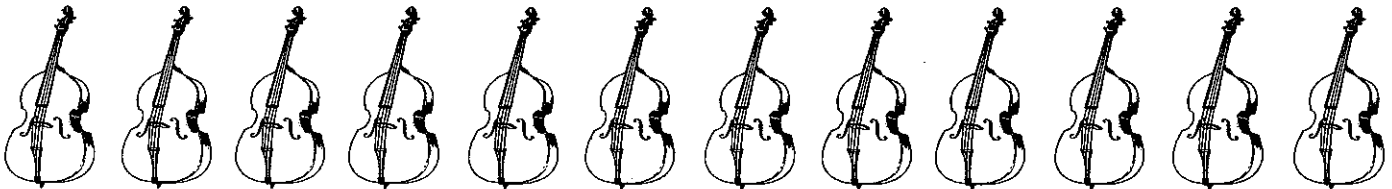
_____ groups $12 \div 3 =$ _____

Divide 18 masks into groups of 3.

_____ groups $18 \div 3 =$ _____

Divide 10 sharks into groups of 5.

_____ groups $10 \div 5 =$ _____

Number of Problems: 4   Number Correct: _____   Time to complete: _____ min.

Skill:

Division ÷1

$$1\overline{)}^{5}\qquad 1\overline{)9}\qquad 1\overline{)1}\qquad 1\overline{)}^{6}\qquad 1\overline{)2}$$

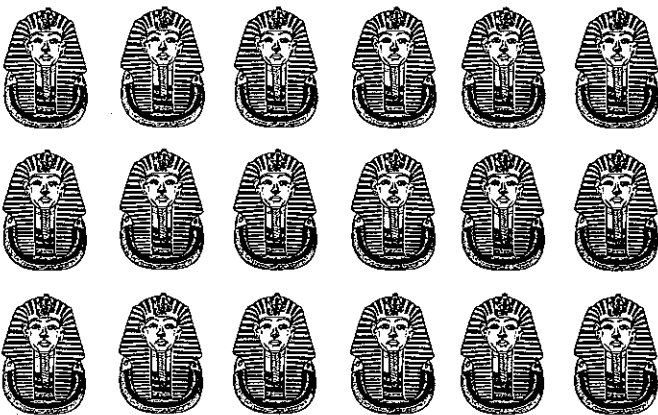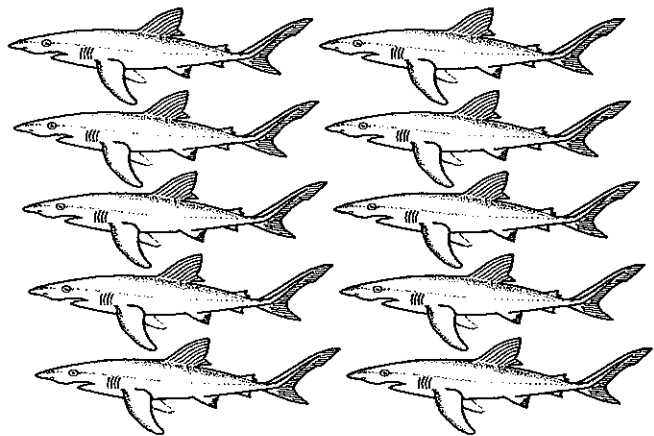$$1\overline{)0}\qquad 1\overline{)}^{7}\qquad 1\overline{)8}\qquad 1\overline{)4}\qquad 1\overline{)3}$$

$$1\overline{)7}\qquad 1\overline{)}^{9}\qquad 1\overline{)5}\qquad 1\overline{)}^{8}\qquad 1\overline{)6}$$

$6 \div 1 =$ _____ $3 \div 1 =$ _____   _____ $\div 1 = 9$

$0 \div 1 =$ _____ $8 \div 1 =$ _____ $2 \div 1 =$ _____

_____ $\div 1 = 5$ $4 \div 1 =$ _____ $7 \div 1 =$ _____

$1 \div 1 =$ _____ $9 \div 1 =$ _____   _____ $\div 1 = 0$

_____ $\div 1 = 6$ $5 \div 1 =$ _____   _____ $\div 1 = 2$

Number of Problems: 30   Number Correct: _____   Time to complete: ____ min.

What's Missing?

Divisors 1 to 12   **Without Remainders**

a)
```
      1 1
  6 ) □ 6
      □
     ─────
      0 6
        6
     ─────
        0
```

b)
```
      1 □
  3 ) □ 6
      □
     ─────
      0 6
        6
     ─────
        0
```

c)
```
      1 4
  2 ) 2 □
      □
     ─────
      0 □
        8
     ─────
        0
```

d)
```
      0 8
  6 ) 4 □
      □ 8
     ─────
        0
```

e)
```
      □ 3
  3 ) 9 9
      9
     ─────
      □ 9
      □
     ─────
        0
```

f)
```
      6 5
  1 ) □ □
```

g)
```
      1 0
  4 ) 4 0
      □
     ─────
      0 0
      □
     ─────
        0
```

h)
```
      1 □
  6 ) 7 8
      □
     ─────
      1 □
      1 8
     ─────
        □
```

i)
```
      □ 2
  5 ) 6 □
      5
     ─────
      □ □
      1 0
     ─────
        0
```

j)
```
      1 5
  3 ) 4 □
      3
     ─────
      □ □
      1 5
     ─────
        □
```

k)
```
        □ □
  12 ) 1 4 4
       □ 2
      ───────
       □ 4
       2 □
      ───────
         0
```

l)
```
        □ □
  10 ) 1 0 □
       1 0
      ───────
       □ □
       0 0
      ───────
         0
```

Number of Problems: 12   Number Correct: _____   Time to complete: ____ min.

Name: _____

Word Problems

2 and 3 Digit Numbers
By 1 and 2 Digit Divisors   Without Remainders

There are 14 tabby kittens at the animal shelter. If they make 2 equal groups, how many kittens will be in each group?

_____ kittens

Donna had 44 free fry coupons. She gave 2 coupons to each kid in her class. How many kids are in her class?

_____ kids

Lisa made 18 invitations to her birthday party. If she wants to separate them into 3 equal groups, how many invitations will there be in each group?

_____ invitations

At camp, Ryan hung up 78 towels. If each clothesline held 13 towels, how many clotheslines were needed?

_____ clotheslines

Sean caught 63 frogs in the ponds. He has separated them equally into 9 different kinds. How many frogs are there of each kind?

_____ frogs

At Pet World, there are 96 fish. Each aquarium holds 12 fish. How many aquariums are being used at the pet shop?

_____ aquariums

Dianne put 36 pictures in her scrapbook. If she put them into 3 equal groups, how many pictures will be in each group?

_____ pictures

In the library, there were 20 new computers installed. Each class got to use $\frac{1}{2}$ at a time. How many computers did each class use?

_____ computers

There are 144 marbles in the bucket. If you put them into 12 equal groups, how many marbles will there be in each group?

_____ marbles

In total, the 3 girls walked their dogs 12 blocks. If Veneda, Kelly, and Lisa walked equal distances, how far did they each walk their dogs?

_____ blocks

Number of Problems: 10   Number Correct: _____   Time to complete: ____ min.