Name _____ Date _____ Class _____

# SKILL 24: Estimating Quotients

To estimate a quotient with a 1-digit divisor, round the dividend to a multiple of 10 that makes the division easy. Then estimate the quotient. To help you estimate quotients with 2-digit divisors, use compatible numbers for the dividend and the divisor.

## Example 1

**Estimate: 462 ÷ 8.**

462 ÷ 8 — Look at the dividend. Identify a basic fact related to 8.
↓ 46 is close to 48, and 48 ÷ 8 = 6.
480 ÷ 8 — Round the dividend and estimate the quotient.

An estimated quotient of 462 ÷ 8 is 60.

## Example 2

**Estimate: 1,704 ÷ 62.**

1,704 ÷ 62 — Look at both the dividend and the divisor.
↓ ↓ Think of numbers that are close to each that are easy to divide.
1,800 ÷ 60 — Divide the compatible numbers to estimate the quotient.

An estimated quotient of 1,704 ÷ 62 is 30.

## Guided Practice

**Estimate each quotient.**

**1.** 125 ÷ 4
↓ ↓
120 ÷ 4 = _____

**2.** 316 ÷ 82
↓ ↓
320 ÷ 80 = _____

**3.** 2,586 ÷ 48
↓ ↓
2,500 ÷ 50 = _____

**Estimate each quotient. Show what numbers you used.**

**4.** 3,452 ÷ 7
↓ ↓
_____ ÷ _____ = _____

**5.** 864 ÷ 3
↓ ↓
_____ ÷ _____ = _____

**6.** 642 ÷ 17
↓ ↓
_____ ÷ _____ = _____

**7.** 626 ÷ 9
↓ ↓
_____ ÷ _____ = _____

**8.** 472 ÷ 53
↓ ↓
_____ ÷ _____ = _____

**9.** 7,869 ÷ 22
↓ ↓
_____ ÷ _____ = _____

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## SKILL 24: Practice

**Estimate each quotient. Show what numbers you used.**

**1.** 635 ÷ 9

↓ ↓

____ ÷ ____ = ____

**2.** 5,924 ÷ 33

↓ ↓

____ ÷ ____ = ____

**3.** 233 ÷ 6

↓ ↓

____ ÷ ____ = ____

**4.** 809 ÷ 92

↓ ↓

____ ÷ ____ = ____

**5.** 7,468 ÷ 8

↓ ↓

____ ÷ ____ = ____

**6.** 371 ÷ 6

↓ ↓

____ ÷ ____ = ____

**7.** 585 ÷ 58

____ ÷ ____ = ____

**8.** 517 ÷ 7

____ ÷ ____ = ____

**9.** 386 ÷ 5

____ ÷ ____ = ____

**10.** 362 ÷ 51

____ ÷ ____ = ____

**11.** 4,106 ÷ 55

____ ÷ ____ = ____

**12.** 145 ÷ 8

____ ÷ ____ = ____

**13.** 32,128 ÷ 36

____ ÷ ____ = ____

**14.** $1,407 ÷ 21

____ ÷ ____ = ____

**15.** 3,827 ÷ 45

____ ÷ ____ = ____

**Solve.**

**16.** Mrs. Karl is installing outdoor lighting for a housing complex. She spent $1,009 for a carton of 48 light fixtures. Estimate the price of one fixture.

_____


**17.** Allie can stuff 28 envelopes in one hour. Which of these division problems gives the best estimate of the number of hours it will take her to stuff 239 envelopes?

*Skill 24*

**A** 300 ÷ 20 **C** 240 ÷ 30

**B** 200 ÷ 20 **D** 300 ÷ 30

**18.** A potter can make 8 mugs in one hour. What is the best estimate of the number of mugs he can make in 62 hours?

*Skill 13*

**F** 8 **H** 70

**G** 48 **J** 480