LESSON MAKER PRO

Decimal Share Models

Use equal groups to divide decimal amounts.

GRADE 5 · TEKS 5.3.F

5.3.F "represent quotients of decimals to the hundredths, up to four-digit dividends and two- digit whole number divisors, using objects and pictorial models, including area models;"

NAME _____ DATE _____

MODEL EQUAL SHARES

A decimal can be shared by thinking in tenths or hundredths. Use a model to make equal groups, then place the decimal in the quotient so the value stays the same.

WORKED EXAMPLE

Use the dot array to find 2.4 / 8.

8 equal groups

Each dot = 0.1



1. The 24 dots show 24 tenths, or 2.4.
2. There are 8 equal columns.
3. Each column has 3 tenths, or 0.3.

Answer: 0.3

PRACTICE 4 problems

1 Find 7.56 / 3.

ANSWER _____

2 Find 9.36 / 12.

ANSWER _____

3 Find 18.9 / 7.

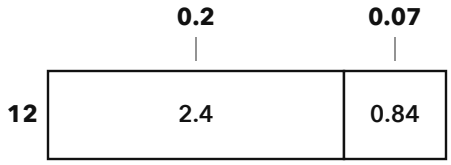
ANSWER _____

4 Find 42.84 / 14.

ANSWER _____

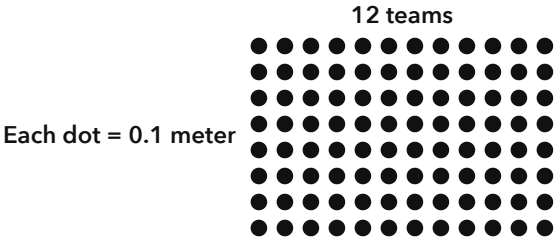
APPLY IT Show your work

1 Twelve friends split $3.24 from a game prize equally. Use the area model to find each share.



ANSWER _____

2 A makers club shares a 9.6-meter ribbon roll among 12 teams. The dot array shows the ribbon. Each dot is 0.1 meter, and each column is one team. How much ribbon does each team get?



ANSWER _____

3 Use 24 counters or teacher-supplied paper pieces; each represents 0.1 of one unit. Actually share them equally among 8 groups. On separate paper draw the resulting rows or columns, label each group and each counter's value, and record 2.4 ÷ 8. Explain why each group is 0.3 rather than 3 units.

WORK SPACE

ANSWER _____

CHALLENGE One step up

A team earns $98.56 from a fundraiser and shares it equally among 16 players. What amount does each player get? Explain using partial quotients or a model.

WORK SPACE AND ANSWER

ANSWER KEY # Decimal Share Models

GRADE 5 · TEKS 5.3.F

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Find 7.56 / 3.	**2.52**
2	Find 9.36 / 12.	**0.78**
3	Find 18.9 / 7.	**2.7**
4	Find 42.84 / 14.	**3.06**

PART 2 · APPLY IT

1. **$0.27** The model shows 12 groups of 0.2 and 12 groups of 0.07. Add 0.2 + 0.07 to get $0.27 per friend.
2. **0.8 meter** Each column has 8 dots. Eight tenths is 0.8 meter.
3. **Eight groups of three tenths each; 2.4 ÷ 8 = 0.3.** Observe sharing of 24 equal-value pieces into 8 groups of 3 and inspect the matching labeled drawing. Require the whole-unit/tenth interpretation; preserve the correct original pictorial sharing tasks.

CHALLENGE

$6.16; 16 × 6 = 96, leaving 2.56. Then 16 × 0.16 = 2.56, so 98.56 / 16 = 6.16.

Accept equivalent decimal forms, such as 2.70 for 2.7. For the challenge, accept any correct model or partial-quotients explanation that shows a $6.16 share.