# هيكل أسئلة اختبار نهاية الفصل – ريفيل




| تم تحميل هذا الملف من موقع المناهج الإماراتية |
|---|
| موقع المناهج ⇦ المناهج الإماراتية ⇦ الصف الخامس ⇦ رياضيات ⇦ الفصل الأول ⇦ ملفات متنوعة ⇦ الملف |
| تاريخ إضافة الملف على موقع المناهج: 15-11-2026 13:43:00 |

| المزيد من مادة رياضيات: | ملفات ا كتب للمعلم ا كتب للطالب ا اختبارات الكترونية ا اختبارات ا حلول ا عروض بوربوينت ا أوراق عمل منهج انجليزي ا ملخصات وتقارير ا مذكرات وبنوك ا الامتحان النهائي ا للمدرس |
|---|

| التواصل الاجتماعي بحسب الصف الخامس | | | | | |
|---|---|---|---|---|---|
| صفحة المناهج الإماراتية على فيسبوك |  |  |  |  |  |
| المواد على تلغرام | التربية الاسلامية | اللغة العربية | اللغة الانجليزية | الرياضيات | |

| المزيد من الملفات بحسب الصف الخامس والمادة رياضيات في الفصل الأول | |
|---|---|
| 1 | اختبار نهاية الفصل لمنهج ريفيل |
| 2 | اختبار تجريبي في لنهاية الفصل |
| 3 | مراجعة نهاية الفصل مع الحلول |
| 4 | تغطية دروس الوحدة الثانية |
| 5 | ملزمة مراجعة امتحان نهاية الفصل |

| تحميل تطبيق المناهج للهواتف الذكية | |
|---|---|
| تطبيق المناهج على App Store (آبل) | تطبيق المناهج على Play Google (أندرويد) |

# G5 General

MATH

## Coverage Questions of End of Term 1 Exam

Grade 5 General · Mathematics · 2026–2027 · Reveal Math Grade 5, Volume 1

UNITED ARAB EMIRATES
MINISTRY OF EDUCATION

الإمارات العربية المتحدة
وزارة التربية والتعليم

| | |
|---|---|
| End of Term 1 Exam Coverage | هيكل اختبار نهاية الفصل الدراسي الأول |
| **Grade 5 General - Mathematics** | **الصف الخامس - عام - الرياضيات** |
| Academic Year 2026-2027 | العام الدراسي 2026-2027 |
| Reveal | ريفيل |

| عدد الأسئلة<br>Number of questions | درجة السؤال<br>Marks per question | الدرجة القصوى الممكنة<br>Maximum overall grade |
|---|---|---|
| **25** | **(3-10)** | **100** |

| مدة الاختبار<br>Exam duration | طريقة التطبيق<br>Mode of implementation | الآلة الحاسبة<br>Calculator |
|---|---|---|
| **150 دقيقة**<br>**150 minutes** | **إلكتروني وورقي**<br>**Electronic & Paper** | **يُمنع استخدام الآلة الحاسبة**<br>**The use of a calculator is not allowed** |

⚠ قد تظهر الأسئلة بترتيب مختلف في الاختبار الفعلي.

⚠ Questions might appear in a different order in the actual exam.

| نوع الأسئلة<br>Question type | Q | Learning outcome | Example | Page |
|---|---|---|---|---|
| أسئلة اختيار من متعدد<br>Multiple Choice Questions | Q1 | Describe volume as an attribute of solid figures | 1-7 | 35 |
| | Q2 | Determine volume by counting unit cubes that fill a solid with no gaps or overlaps | 1-7 | 39 |
| | Q3 | Find the volume of rectangular prisms using formulas | 1-7 | 43 |
| | Q4 | Recognize that the value of a digit represents ten times as much as it represents in the place to its right. | 1-8 | 65 |
| | Q5 | Read and write decimals to thousandths using standard form, expanded form, and word form. | 1-12 | 73 |

| نوع الأسئلة Question type | Q | Learning outcome | Example | Page |
|---|---|---|---|---|
| أسئلة اختيار من متعدد Multiple Choice Questions | Q6 | Use rounding strategies to round decimals | 1-10 | 83 |
| | Q7 | Estimate sums and differences of decimals | 1-9 | 95 |
| | Q8 | Represent addition of decimals using decimal grids | 1-10 | 101 |
| | Q9 | Explain how to use various strategies to add decimals | 1- 8 | 105 |
| | | | 9,10,11 | 106 |
| | Q10 | Represent subtraction of decimals less than 1 containing hundredths | Learn | 112 |
| | Q11 | Subtract tenths from hundredths | 1- 8 | 117 & 118 |
| | | Subtract hundredths from tenths | | |
| | Q12 | Write a power of 10 using a base of 10 and exponents | 1- 14 | 137 |
| | Q13 | Determine the products of numbers multiplied by powers of 10 written with exponents | 1- 16 | 141 & 142 |
| | Q14 | Use an area model and partial products to multiply multi-digit whole numbers | 1- 8 | 149 |
| | Q15 | Multiply using an algorithm | 1- 8 | 157 |
| | Q16 | Use patterns to multiply a decimal by a power of 10 | 1- 5 | 175 |
| | Q17 | Explain how to estimate products of two decimals | 1- 13 | 179 |
| | Q18 | Use patterns based on place value concepts and properties of operations to make generalizations about multiplying decimals | 1- 11 | 193 |
| | Q19 | Use patterns to determine the quotient when dividing by a multiple of 10 | 1- 10 | 209 |
| | Q20 | Estimate quotients of multi-digit numbers to determine if calculations are reasonable | 1- 9 | 213 |
| أسئلة مقالية Free Response Questions | Q21 | Find the volume of composite figures | Learn | 48 |
| | | | 1 - 5 | 49 |
| | Q22 | Compare two decimals to the thousandths place using place value | Learn | 76 |
| | | | 1- 9 | 77 |
| | Q23 | Use strategies to add decimals | Learn | 108 |
| | | | 1- 9 | 109 |
| | | Represent subtraction of decimals less than 1 containing hundredths | 1-7 | 113 |

| نوع الأسئلة Question type | Q | Learning outcome | Example | Page |
|---|---|---|---|---|
| أسئلة مقالية Free Response Questions | Q24 | Explain how to estimate products of multi-digit factors | Learn | 144 |
| | | | 1 - 9 | 145 |
| | | Use partial products to help multiply multi-digit factors | 1 - 8 | 153 |
| | Q25 | Use an area model to determine partial products | Learn | 188 |
| | | | 1 - 8 | 189 |
| | | Use partial quotients to solve division problems, which sometimes include a remainder | Learn | 228 |
| | | | 1 - 5 | 229 |

# MCQ

**Q1 – Q20**

# Multiple Choice Questions

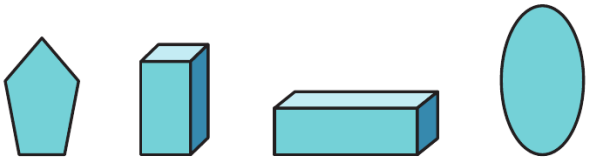
Exam questions Q1 – Q20

# Q1
MCQ

## Describe volume as an attribute of solid figures.

Lesson 2-1 · Understand Volume · Page 35 · Exercises 1–7

**1.** Which of these figures have volume? Justify your reasoning.



**For the situation, would you measure the *length*, *area*, or *volume*? Explain.**

**2.** the amount of soil needed to fill a flower pot

**3.** the distance of a bike ride

**4.** the amount of wall space covered by a poster

**5.** the amount of concrete needed to fill a patio

**6.** the space inside a moving truck

**7.** the distance around a building

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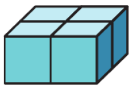
**Q2**
MCQ

# Determine volume by counting unit cubes that fill a solid with no gaps or overlaps.

Lesson 2-2 · Use Unit Cubes to Determine Volume · Page 39 · Exercises 1–7

**Determine the volume of the figure.**

**1.**



Number of layers: _____

Number in each layer: _____

Volume: _____ cubic units

**2.**

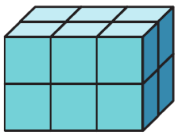


Number of layers: _____

Number in each layer: _____

Volume: _____ cubic units

**3.**

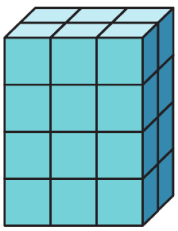


Number of layers: _____

Number in each layer: _____

Volume: _____ cubic units

**4.**

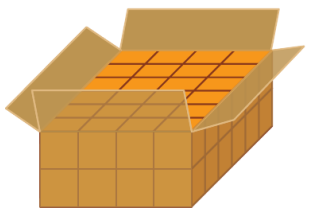


Number of layers: _____

Number in each layer: _____

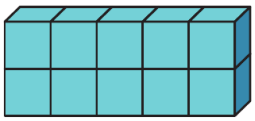
Volume: _____ cubic units

**5.** How can you determine the volume of the box?



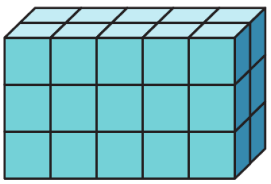
**What is the volume of the figure?**

**6.**



_____ cubic units

**7.**



cubic units

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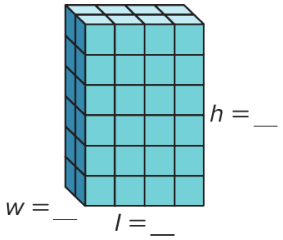
# Q3
MCQ

## Find the volume of rectangular prisms using formulas.

Lesson 2-3 · Use Formulas to Determine Volume · Page 43 · Exercises 1–7

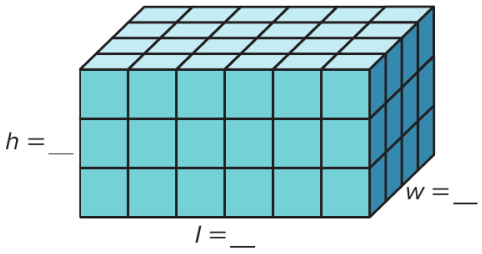
**Label the dimensions and then determine the volume of the figure.**

**1.**




$V =$ _____ cubic units

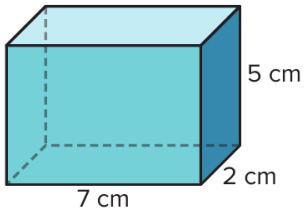
**2.**



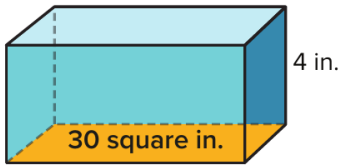

$V =$ _____ cubic units

**What is the volume of the figure? Tell which volume formula you used and why.**

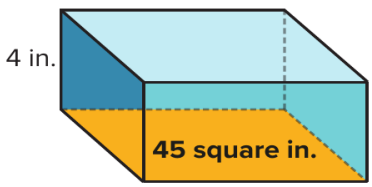
**3.**



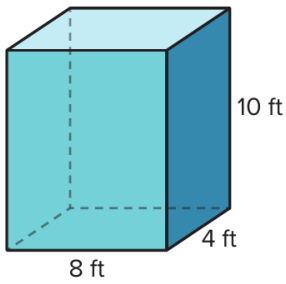

**4.**



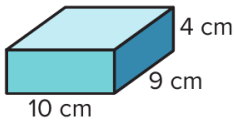

**5.**




**6.**




**7.** Explain how the Associative Property can be used to mentally find the volume of this figure.




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# Q4
MCQ

## Recognize that the value of a digit represents ten times as much as it represents in the place to its right.

Lesson 3-1 · Generalize Place Value · Page 65 · Exercises 1–8

**Use the place-value chart to complete the sentence.**

1. The value of the 6 in the hundreds place is _____ times the value of the 6 in the _____ place.

| hundred thousands | ten thousands | thousands | hundreds | tens | ones |
|---|---|---|---|---|---|
| | 3 | 2 | 5 | 6 | 5 |
| | 7 | 3 | 6 | 1 | 0 |

**Complete the sentences to describe the relationship between the values of each digit 4 and each digit 9 in the number 447,699.**

2. The value of the digit 4 in the ten thousands place is _____ the value of the digit 4 in the _____ place.
3. The value of the digit 9 in the _____ place is 10 times the value of the digit 9 in the _____ place.

**Is each statement *true* or *false*?**

4. The digit 3 in 5,630, is 10 times the value of the digit 3 in 342.
5. The digit 3 in 5,630, is $\frac{1}{10}$ the value of the digit 3 in 342.
6. The digit 3 in 5,630, is 10 times the value of the 3 in 13.
7. The digit 3 in 5,630, is $\frac{1}{10}$ the value of the digit 3 in 13.

8. On Tuesday, 600 people attended a play at the Children's Theatre. The same play had 6,000 attendees on Saturday.

   When you compare 600 attendees to 6,000 attendees, 600 is _____ as much as 6,000.

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**Q5**
MCQ

## Read and write decimals to thousandths using standard form, expanded form, and word form.

Lesson 3-3 · Read and Write Decimals · Page 73 · Exercises 1–12

**What is the word form of the decimal?**

**1.** 8.2

**2.** 8.02

**3.** 0.82

**4.** 0.082

**What is the standard form of the decimal?**

**5.** $0.9 + 0.03 + 0.007$

**6.** $20 + 0.7 + 0.08 + 0.006$

**7.** $5 + 0.01 + 0.009$

**8.** $7 + \frac{4}{10} + \frac{5}{1{,}000}$

**What is each decimal in standard form?**
**What is each decimal in expanded form?**

**9.** ninety-three and six thousandths

**10.** three and eight hundred forty-six thousandths

**11.** two hundred twelve and fifteen thousandths

**12.** seven hundred fifty-one thousandths

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**Q6**
MCQ

## Use rounding strategies to round decimals.

Lesson 3-5 · Use Place Value to Round Decimals · Page 83 · Exercises 1–10

**What is each decimal rounded to the nearest whole number? You can use a number line or place value.**

**1.** 78.39

**2.** 4.07

**3.** 12.7

**4.** 15.55

**What is each decimal rounded to the nearest tenth? You can use a number line or place value.**

**5.** 42.89

**6.** 3.65

**7.** 16.12

**8.** 98.17

**9.** Danica rounded a number to the nearest tenth to get 14.7. What number could she have rounded to get this answer?

**10.** Which statements are *true*?

**A.** The decimal 43.678 rounded to the nearest tenth is 43.6.

**B.** The decimal 43.678 rounded to the nearest tenth is 43.7.

**C.** The decimal 43.678 rounded to the nearest hundredth is 43.68.

**D.** The decimal 43.678 rounded to the nearest hundredth is 43.67.

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**Q7**
MCQ

# Estimate sums and differences of decimals.

Lesson 4-1 · Estimate Sums and Differences of Decimals · Page 95 · Exercises 1–9

**What is a reasonable estimate for the sum or difference? Explain the strategy you used.**

**1.** 9.86 + 4.30

____ + ____ = ____

**2.** 43.85 + 56.01

____ + ____ = ____

**3.** 3.92 + 6.14

____ + ____ = ____

**4.** 24.73 + 26.05

____ + ____ = ____

**5.** 8.32 − 5.9

____ − ____ = ____

**6.** 88.4 − 10.96

____ − ____ = ____

**7.** 16.28 − 5.9

____ − ____ = ____

**8.** 5.42 − 1.7

____ − ____ = ____

**9.** **STEM Connection** A baby rabbit weighs 24.8 grams. A veterinarian predicts the rabbit will weigh about 64.5 grams by the next visit. About how much weight will the rabbit gain?



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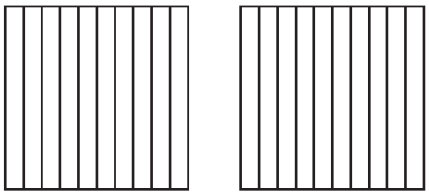
**Q8**
MCQ

# Represent addition of decimals using decimal grids.

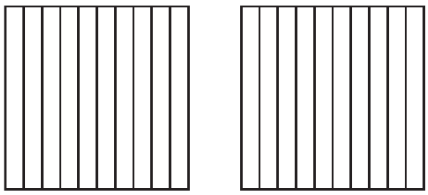
Lesson 4-2 · Represent Addition of Decimals · Page 101 · Exercises 1–10

**What is the sum? Use the decimal grids.**

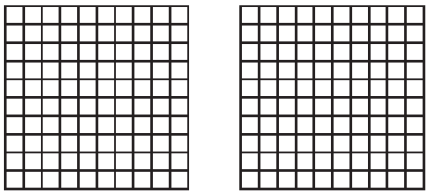
**1.** 0.7 + 0.1 = _____



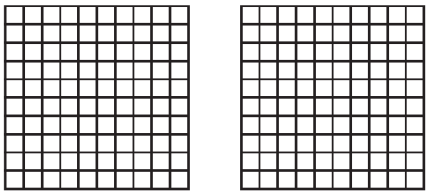
**2.** 0.5 + 0.8 = _____



**3.** 0.02 + 0.09 = _____



**4.** 0.78 + 0.64 = _____



**What is the sum? Use decimal grids to show the sum.**

**5.** 0.2 + 0.7 = _____

**6.** 0.5 + 0.6 = _____

**7.** 0.08 + 0.06 = _____

**8.** 0.79 + 0.84 = _____

**9.** 0.32 + 0.88 = _____

**10.** 0.46 + 0.29 = _____

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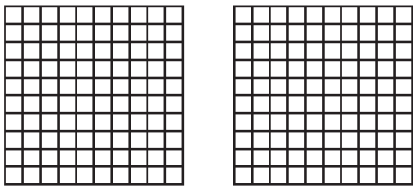
**Q9**
MCQ

## Explain how to use various strategies to add decimals.

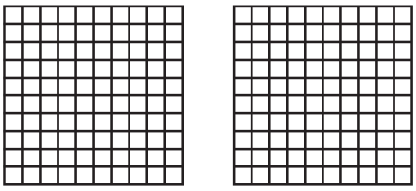
Lesson 4-3 · Represent Addition of Tenths and Hundredths · Page 105 · Exercises 1–8 · Part 1 of 2

**What is the sum? Use the decimal grids to solve.**

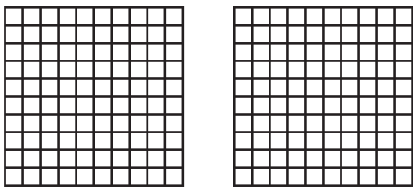
**1.** 0.9 + 0.02 = _____



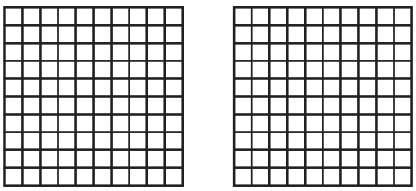
**2.** 0.14 + 0.5 = _____



**3.** 0.45 + 0.4 = _____



**4.** 0.6 + 0.09 = _____



**What is the sum? Use decimal grids to solve.**

**5.** 0.7 + 0.18 = _____

**6.** 0.86 + 0.5 = _____

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**7.** 0.44 + 0.6 = _____

**8.** 0.1 + 0.89 = _____

**Q9**
MCQ

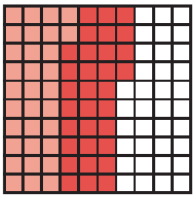
## Explain how to use various strategies to add decimals.

Lesson 4-3 · Represent Addition of Tenths and Hundredths · Page 106 · Exercises 9, 10, 11 · Part 2 of 2

**9.** Adrian jumped 0.25 meter down a sidewalk. He jumped again and went an additional 0.3 meter. What is the total distance that Adrian jumped? Show your work.

**10.** Vi bought 1.4 pounds of pecans and 0.79 pound of almonds. What is the total weight of the nuts Vi bought?

**11.** **Error Analysis** Abe represented the expression 0.32 + 0.4 on this decimal grid. How do you respond to Abe?



# Q10
MCQ

## Represent subtraction of decimals less than 1 containing hundredths.



## Learn

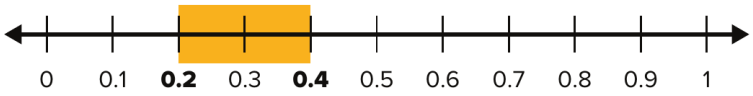
The table shows the decimals represented by different colors on a decimal grid.

**How can you determine how much more is shaded red than green? Yellow than purple?**

| Color | Decimal |
|---|---|
| Red | 0.4 |
| Green | 0.2 |
| Yellow | 0.36 |
| Purple | 0.04 |

Use a number line to find how much more is shaded red than green.

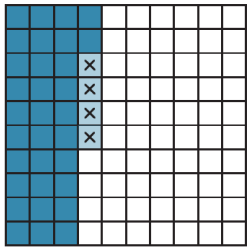
$0.4 - 0.2 = r$




There is 0.2 more shaded red than green.

Use a decimal grid to find how much more is shaded yellow than purple.

$0.36 - 0.04 = y$



There is 0.32 more shaded yellow than purple.

**Math is... Precision**

How is each quantity shown on the decimal grid?

You can use a number line or decimal grid to subtract decimals.

## Work Together

How much greater is the mass of an emu egg than a chicken egg? Explain.



Chicken egg
0.06 kg



Emu egg
0.62 kg

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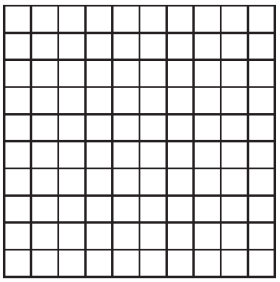
**Q11**
MCQ

# Subtract tenths from hundredths / Subtract hundredths from tenths.

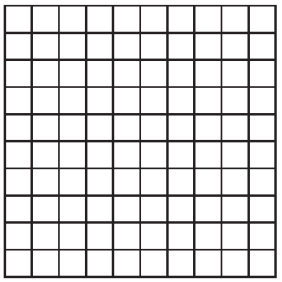
Lesson 4-6 · Represent Subtraction of Tenths and Hundredths · Page 117 · Exercises 1–8

**What is the difference? Use the decimal grids to solve.**

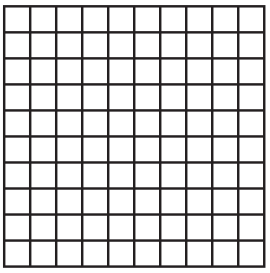
**1.** 0.54 − 0.1 = _____

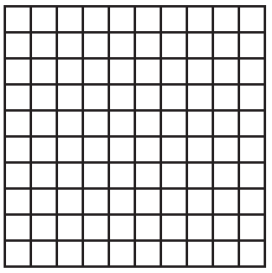


**2.** 0.9 − 0.02 = _____

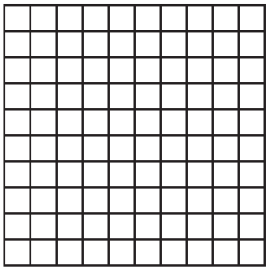


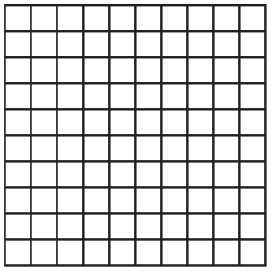
**3.** 1.07 − 0.3 = _____





**4.** 1.28 − 0.7 = _____





**What is the difference? Use decimal grids to solve.**

**5.** 2.3 − 0.27 = _____

**6.** 2.7 − 1.68 = _____

**7.** 1.74 − 0.8 = _____

**8.** 2.25 − 1.8 = _____

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# Q12
MCQ

## Write a power of 10 using a base of 10 and exponents.

Lesson 5-1 · Understand Powers and Exponents · Page 137 · Exercises 1–14

**Write the exponential form as a multiplication expression.**

1. $10^4$
2. $10^2$
3. $10^3$
4. $10^6$

**Write the exponential form.**

5. $10 \times 10 \times 10 =$ _____
6. $10 \times 10 \times 10 \times 10 \times 10 =$ _____
7. $10 \times 10 \times 10 \times 10 =$ _____
8. $10 \times 10 =$ _____

**Write the exponential form of each power of 10.**

9. $10 =$ _____
10. $1{,}000 =$ _____
11. $100 =$ _____
12. $10{,}000 =$ _____

13. Rachel finds the value of $10^5$ as shown. Do you agree with her solution? Tell why.

$10^5 = 10 \times 5 = 50$

14. **STEM Connection** Grace reviewed $10^6$ lines of a computer program. How many lines did she review? Write the product.



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**Q13**
MCQ

## Determine the products of numbers multiplied by powers of 10 written with exponents.

Lesson 5-2 · Patterns When Multiplying a Whole Number by Powers of 10 · Page 141 · Exercises 1–13 · Part 1 of 2

**What is the product? Use patterns to solve.**

**1.** $12 \times 10 =$ _____
$12 \times 100 =$ _____
$12 \times 1{,}000 =$ _____

**2.** $24 \times 1{,}000 =$ _____
$24 \times 10{,}000 =$ _____
$24 \times 100{,}000 =$ _____

**3.** $33 \times 10^2 =$ _____
$33 \times 10^3 =$ _____
$33 \times 10^4 =$ _____

**4.** $57 \times 10^4 =$ _____
$57 \times 10^5 =$ _____
$57 \times 10^6 =$ _____

**What is the product?**

**5.** $23 \times 10^3$

**6.** $581 \times 10^2$

**7.** $60 \times 10^4$

**8.** $103 \times 10^2$

**What is the unknown factor?**

**9.** $571 \times$ _____ $= 5{,}710$

**10.** $43 \times$ _____ $= 4{,}300{,}000$

**11.** $6 \times$ _____ $= 6{,}000$

**12.** $28 \times$ _____ $= 280{,}000$

**13.** How can you describe the relationship between the equations shown?

$6 \times 10^5 = 600{,}000$
$6 \times 10^7 = 60{,}000{,}000$
$6 \times 10^9 = 6{,}000{,}000{,}000$

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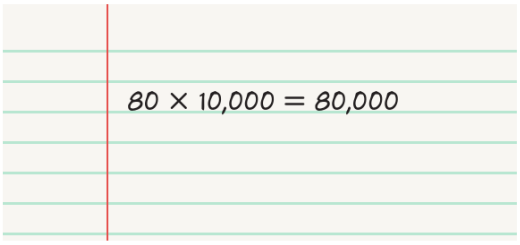
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**Q13**
MCQ

## Determine the products of numbers multiplied by powers of 10 written with exponents.

Lesson 5-2 · Patterns When Multiplying a Whole Number by Powers of 10 · Page 142 · Exercises 14–16 · Part 2 of 2

**14. Error Analysis** Carol says the equation that she wrote is correct. How do you respond to her?




**15.** Which equations are *true*? Circle all that apply.

**A.** $6 \times 100 = 6 \times 10 \times 10 \times 10$

**B.** $10{,}000 \times 4 = 10 \times 10 \times 10 \times 10 \times 4$

**C.** $15 \times 10^3 = 1{,}500$

**D.** $70 \times 10 \times 10 = 7{,}000$

**16. Extend Your Thinking** Find the unknown factor that is a whole number. Explain your thinking.

$$? \times 10^5 = 56{,}300{,}000$$

# Q14
MCQ

## Use an area model and partial products to multiply multi-digit whole numbers.

Lesson 5-4 · Use Area Models to Multiply Multi-Digit Factors · Page 149 · Exercises 1–8

**Complete the area model. Then solve to find the product.**

**1.**

| | 100 | + 50 | + 4 |
|---|---|---|---|
| 30 | 3,000 | | |
| + 6 | 600 | | |

**2.**

| | 400 | + 20 | + 1 |
|---|---|---|---|
| 50 | 20,000 | | 50 |
| + 2 | | | |

**What is the product? Use area models to solve.**

**3.** 15 × 24 = _____

| | 24 |
|---|---|
| 15 | |

**4.** 28 × 132 = _____

| | 132 |
|---|---|
| 28 | |

**5.** 33 × 78 = _____

**6.** 72 × 225 = _____

**Write the multiplication equation based on the area model. Then solve to find the product.**

**7.**

| | 200 | + 10 | + 8 |
|---|---|---|---|
| 20 | | | |
| + 8 | | | |

**8.**

| | 400 | + 10 | + 6 |
|---|---|---|---|
| 60 | | | |
| + 3 | | | |

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# Q15
MCQ

## Multiply using an algorithm.

Lesson 5-6 · Relate Partial Products to an Algorithm · Page 157 · Exercises 1–8

**What is the product?**

1. $\begin{array}{r} 327 \\ \times\ 6 \\ \hline \end{array}$

2. $\begin{array}{r} 543 \\ \times\ 8 \\ \hline \end{array}$

3. $\begin{array}{r} 1{,}931 \\ \times\ 5 \\ \hline \end{array}$

4. $\begin{array}{r} 3{,}462 \\ \times\ 4 \\ \hline \end{array}$

**What is the product? Choose the correct answer.**

5. $188 \times 7 = s$
   - A. $s = 1{,}300$
   - B. $s = 1{,}316$
   - C. $s = 1{,}388$
   - D. $s = 1{,}406$

6. $237 \times 9 = v$
   - A. $v = 2{,}033$
   - B. $v = 2{,}163$
   - C. $v = 2{,}153$
   - D. $v = 2{,}133$

7. $2{,}623 \times 2 = y$
   - A. $y = 5{,}246$
   - B. $y = 4{,}246$
   - C. $y = 5{,}126$
   - D. $y = 5{,}616$

8. $5{,}246 \times 3 = r$
   - A. $r = 15{,}882$
   - B. $r = 16{,}838$
   - C. $r = 16{,}612$
   - D. $r = 15{,}738$

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**Q16**
MCQ

## Use patterns to multiply a decimal by a power of 10.

Lesson 6-1 · Patterns When Multiplying Decimals by Powers of 10 · Page 175 · Exercises 1–5

**Write the multiplication expression using factors of 10. Then, find the value.**

**1.** $3.6 \times 10^2$

**2.** $7.2 \times 10^3$

**3.** $4.8 \times 10^4$

**4.** $1.9 \times 10^2$

**5.** Ashley rides the train to visit her grandmother. She lives $1.2 \times 10^2$ miles away from her grandmother. How many miles does she travel?

# Q17
MCQ

## Explain how to estimate products of two decimals.

Lesson 6-2 · Estimate Products of Decimals · Page 179 · Exercises 1–13

**Estimate each product by rounding. Show your work.**

1. $5.73 \times 3.16 = ?$
2. $6.23 \times 3.87 = ?$
3. $13.6 \times 9.82 = ?$
4. $40.55 \times 7.89 = ?$
5. $19.91 \times 28.75 = ?$
6. $24.09 \times 12.57 = ?$

**Estimate each product by finding a range. Show your work.**

7. $4.93 \times 7.88 = ?$
8. $3.29 \times 3.81 = ?$
9. $7.77 \times 10.8 = ?$
10. $4.1 \times 13.5 = ?$
11. $20.11 \times 9.96 = ?$
12. $16.12 \times 3.55 = ?$

13. Bryce is buying 4.3 kilograms of apples. The store charges $1.79 per kilogram for apples. About how much will the apples cost? Explain which estimation strategy you used.

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**Q18**
MCQ

## Use patterns based on place value concepts and properties of operations to make generalizations about multiplying decimals.

Lesson 6-5 · Generalizations About Multiplying Decimals · Page 193 · Exercises 1–11

**Complete each sentence.**

**1.** 3.8 is _____ of 38.

So, 3.8 × 25 is _____ of the product 38 × 25.

**2.** 0.45 is _____ of 45.

So, 0.45 × 16 is _____ of the product 45 × 16.

**3.** 7.8 is _____ of 78 and 9.2 is _____ of 92.

So, 7.8 × 9.2 is _____ of the product 78 × 92.

**What is the product? Use patterns to solve.**

**4.** 45 × 17 = 765
45 × 1.7 = _____
45 × 0.17 = _____

**5.** 32 × 14 = _____
32 × 1.4 = 44.8
3.2 × 1.4 = _____

**6.** 16 × 89 = 1,424
16 × 8.9 = _____
16 × 0.89 = _____

**7.** 61 × 22 = _____
6.1 × 22 = 134.2
6.1 × 2.2 = _____

**8.** 96 × 55 = _____
96 × 5.5 = _____
9.6 × 5.5 = 52.8

**9.** 19 × 42 = _____
1.9 × 42 = 79.8
1.9 × 4.2 = _____

**10.** 67 × 34 = _____
67 × 3.4 = _____
6.7 × 3.4 = _____

**11.** 82 × 67 = _____
82 × 6.7 = _____
8.2 × 6.7 = _____

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**Q19**
MCQ

# Use patterns to determine the quotient when dividing by a multiple of 10.

Lesson 7-1 · Division Patterns with Multi-Digit Numbers · Page 209 · Exercises 1–10

**Use a basic fact and patterns to solve.**

**1.** 15 ÷ _____ = 5

150 ÷ 30 = _____

_____ ÷ 30 = 50

15,000 ÷ _____ = _____

**2.** 32 ÷ 8 = _____

_____ ÷ 80 = _____

3,200 ÷ _____ = _____

_____ ÷ _____ = _____

**3.** 20,000 ÷ 40 = _____

**4.** 15,000 ÷ 30 = _____

**5.** 18,000 ÷ 60 = _____

**6.** 16,000 ÷ 80 = _____

**7.** 8,000 ÷ 40 = _____

**8.** 25,000 ÷ 50 = _____

**9.** 32,000 ÷ 80 = _____

**10.** 9,000 ÷ 30 = _____

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# Q20
MCQ

## Estimate quotients of multi-digit numbers to determine if calculations are reasonable.

Lesson 7-2 · Estimate Quotients · Page 213 · Exercises 1–9

**Estimate the quotient.**

1. 2,400 ÷ 34

2. 3,500 ÷ 65

3. 1,800 ÷ 92

4. 4,800 ÷ 86

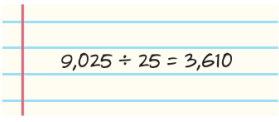
5. 6,390 ÷ 31

6. 4,988 ÷ 19

7. 809 ÷ 10

8. 9,598 ÷ 11

9. **Error Analysis** Cho writes this equation. Is her calculation reasonable? Explain.




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# FRQ

**Q21 – Q25**

# Free Response Questions

Exam questions Q21 – Q25

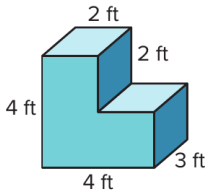
# Q21
FRQ

## Find the volume of composite figures.

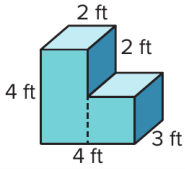
Lesson 2-4 · Determine the Volume of Composite Figures · Page 48 · Learn section · Part 1 of 2

## Learn

**How can you determine the volume of this figure?**



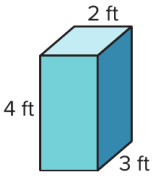

Look for a way to make two rectangular prisms.



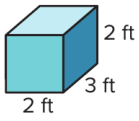

**Math is... Connections**

Why should the volume be the same whichever way you decompose a composite figure?

Determine the volume of each rectangular prism.



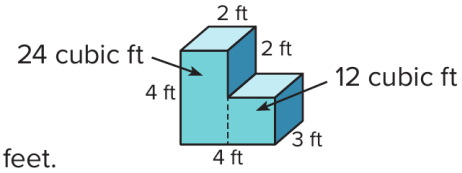

$V = 2 \times 3 \times 4$
$V = 24$ cubic ft




$V = 2 \times 3 \times 2$
$V = 12$ cubic ft

Add the volumes.

$24 + 12 = 36$

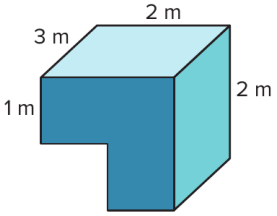



The volume of the figure is 36 cubic feet.

You can determine the volume of the **composite solid figure** by adding the volumes of the rectangular prisms that compose it.

## Work Together

Draw lines to show how you could decompose the solid. What is the volume of the figure?



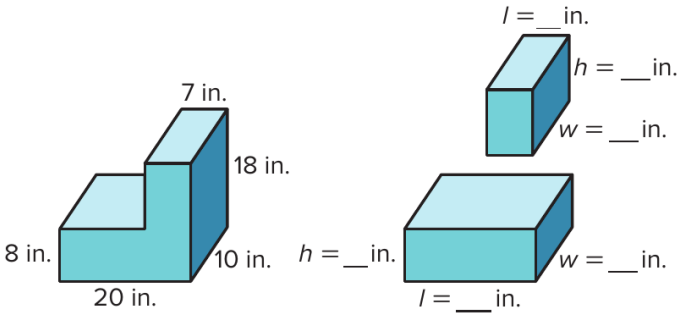

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# Q21
FRQ

## Find the volume of composite figures.

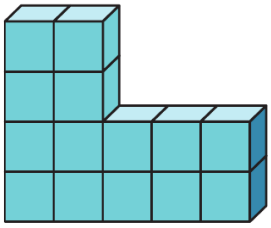
Lesson 2-4 · Determine the Volume of Composite Figures · Page 49 · Exercises 1–5 · Part 2 of 2

**1.** Label the unknown dimensions of the decomposed figure and then find the volume of the composite solid figure.



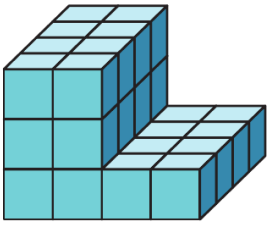

**What is the volume of the figure?**

**2.**



$V =$ _____ cubic units

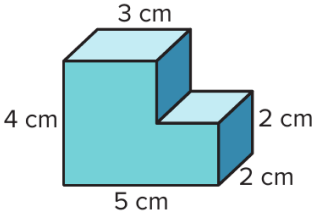
**3.**



$V =$ _____ cubic units

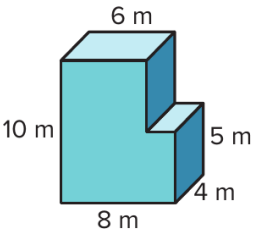
**Draw line(s) to show how you decomposed the figure.**
**What is the volume of the figure?**

**4.**




$V =$ _____

**5.**




$V =$ _____

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# Q22
FRQ

## Compare two decimals to the thousandths place using place value.



## Learn

**Which bag weighs more?**



3.281 kg 3.095 kg

Compare the digits in each place starting with the greatest place-value position.

| ones | tenths | hundredths | thousandths |
|---|---|---|---|
| 3 | 2 | 8 | 1 |
| 3 | 0 | 9 | 5 |

Both numbers have 3 ones.

2 tenths > 0 tenths

**Math is... Thinking**

Why was it not necessary to compare the hundredths place?

3.281 > 3.095. So, the purple bag weighs more than the red bag.

You can compare decimals the same way you compare multi-digit numbers.

## Work Together

Compare the weights of these bags.

| ones | tenths | hundredths | thousandths |
|---|---|---|---|
| 3 | 2 | 8 | 1 |
| 3 | 9 | | |

3.281 ◯ 3.9



3.281 kg 3.9 kg

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# Q22
FRQ

## Compare two decimals to the thousandths place using place value.

Lesson 3-4 · Compare Decimals · Page 77 · Exercises 1–9 · Part 2 of 2

**Write >, <, or = in each ◯ to make a true comparison. You can use a place-value chart to help.**

1. 7.790 ◯ 8.7
2. 1.021 ◯ 1.095
3. 6.55 ◯ 5.66
4. 9.9 ◯ 0.99
5. 3.41 ◯ 3.41
6. 2.563 ◯ 2.573

**For exercises 7–9, use the cost of each school supply.**




7. Do the pencils or the highlighters cost more?

8. Write a comparison statement for the cost of the pens and the pencils.

9. Which school supply is the most expensive? Which school supply is the least expensive? Explain how you know.

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# Q23
FRQ

## Use strategies to add decimals.



## Learn

**How can you determine the total cost of the helicopter and robot?**



$17.31



$12.45

**Math is... Modeling**

What equation can you use to represent the problem?

You can use partial sums to determine the total cost.

**One Way** Decompose by place value.

$$17.31 + 12.45 = c$$

$$10 + 7 + 0.3 + 0.01 \qquad 10 + 2 + 0.4 + 0.05$$

$10 + 10 = 20$
$7 + 2 = 9$
$0.3 + 0.4 = 0.7$
$0.01 + 0.05 = 0.06$

Find partial sums

Add partial sums to find the sum

$20 + 9 + 0.7 + 0.06 = 29.76$

**Another Way** Decompose into whole numbers and decimals.

$$17.31 + 12.45 = c$$

$$17 + 0.31 \qquad 12 + 0.45$$

$17 + 12 = 29$
$0.31 + 0.45 = 0.76$

Find partial sums

Add partial sums to find the sum

$29 + 0.76 = 29.76$

We can decompose decimals different ways to find partial sums.

### Work Together

Michael drove 23.06 kilometers on Saturday and 16.38 kilometers on Sunday. What is the total distance he drove during the two days?

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# Q23
FRQ

## Use strategies to add decimals.

Lesson 4-4 · Strategies to Add Decimals · Page 109 · Exercises 1–9 · Part 2 of 3

**What is the sum? Use partial sums to solve.**

**1.** 2.57 + 8.4
= 2 + 0.5 + 0.07 + 8 + 0.4
= _____

**2.** 6.9 + 0.31
= 6 + 0.9 + 0.3 + 0.01
= _____

**3.** 35.12 + 64.73 = _____

**4.** 70.34 + 21.52 = _____

**5.** 14.53 + 11.2 = _____

**6.** 104.75 + 21.9 = _____

**7.** Mattis earns $22.50 shoveling snow. Later, he finds $0.82 in his backpack. How much money does he have now?

**8.** Josh's suitcase weighs 13.4 pounds. Karen's suitcase weighs 21.63 pounds. What is the total weight of the two suitcases?

**9.** Kim's goal was to run at least 10 miles this week to train for her cross-country race. On Tuesday she ran 3.57 miles, and on Wednesday she ran 6.48 miles. Did Kim reach her goal? Explain.

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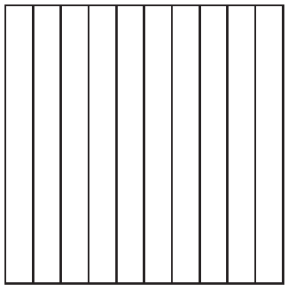
# Q23
FRQ

## Represent subtraction of decimals less than 1 containing hundredths.

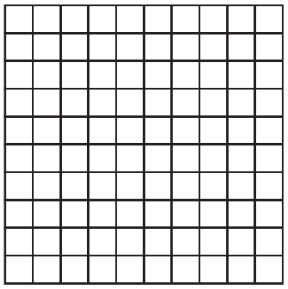
Lesson 4-5 · Represent Subtraction of Decimals · Page 113 · Exercises 1–7 · Part 3 of 3

**What is the difference? Use the decimal grid to solve.**

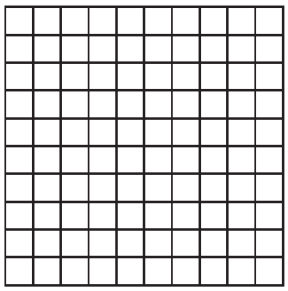
**1.** 0.7 − 0.1 = _____



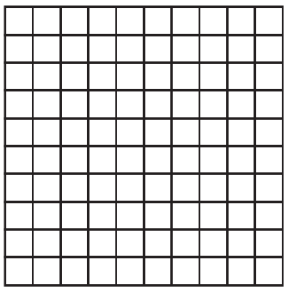
**2.** 0.09 − 0.02 = _____



**3.** 0.54 − 0.38 = _____



**4.** 0.25 − 0.11 = _____



**What is the difference? Use a number line to solve.**

**5.** 0.7 − 0.2 = _____

**6.** 0.6 − 0.4 = _____

**7.** Malik has $0.85. He bought a pencil for $0.50. Does he have enough money left to buy a folder for $0.30? Explain.

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# Q24
FRQ

## Explain how to estimate products of multi-digit factors.



## Learn

On Saturday, 432 people go to the theater.

**About how much money does the theater collect on Saturday?**




You can use strategies you know to determine a reasonable estimate.

**One Way** Compatible numbers

$432 \times 13$

$400 \times 15 = 4 \times 100 \times 15$
$= 4 \times 15 \times 100$
$= 6{,}000$

The theater collects about $6,000.

**Another Way** Rounded factors

$432 \times 13$

$430 \times 10 = 4{,}300$

The theater collects about $4,300.

**Math is... Choosing Tools**

What can and can't an estimated product tell you?

A reasonable estimate is between $4,300 and $6,000.

You can use these estimates to determine that the calculated solution of $5,616 is a reasonable answer.

Estimated products can help you determine whether calculations are reasonable.

## Work Together

Estimate the product of $879 \times 36$.

Which strategy did you use? Explain why.

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# Q24
FRQ

## Explain how to estimate products of multi-digit factors.

Lesson 5-3 · Estimate Products of Multi-Digit Factors · Page 145 · Exercises 1–9 · Part 2 of 3

**Estimate the product.**

1. 643 × 18

2. 325 × 62

3. 438 × 27

4. 572 × 49

5. On a school trip, 54 students went to a museum. Each ticket cost $23. About how much did all students spend on tickets?

6. The town library has 478 shelves. Each shelf holds 38 books. About how many books does the library have?

7. A vendor at a fair is selling her paintings for $23 each. Over the course of the fair, 339 people purchase her paintings. About how much did the vendor earn over the course of the fair?

8. The fifth graders sold 405 baked goods at the bake sale. About how much did the fifth graders earn?




9. **Error Analysis** Han estimates that the product of 492 and 32 will be 1,200. How do you respond to Han?

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# Q24
FRQ

## Use partial products to help multiply multi-digit factors.

Lesson 5-5 · Use Partial Products to Multiply Multi-Digit Factors · Page 153 · Exercises 1–8 · Part 3 of 3

**Find the unknown partial products. Then find the product.**

**1.**

$$\begin{array}{r} 325 \\ \times \quad 73 \\ \hline 21{,}000 \\ 1{,}400 \\ 350 \\ \square \\ \square \\ + \quad \square \\ \hline \square \end{array}$$

**2.**

$$\begin{array}{r} 104 \\ \times \quad 28 \\ \hline 32 \\ 800 \\ \square \\ + \quad \square \\ \hline \square \end{array}$$

**What is the product? Use partial products to solve.**

**3.** $17 \times 86$

**4.** $24 \times 129$

**5.** $36 \times 93$

**6.** $222 \times 58$

**7.** A sporting goods store sold 24 mountain bikes. How much money did they make selling bikes?




**8.** The store also sold 12 mountain bike and scooter packages each for $367. How much money did they make?

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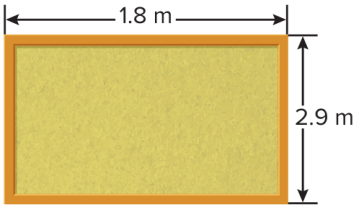
# Q25
FRQ

## Use an area model to determine partial products.

Lesson 6-4 · Use an Area Model To Multiply Decimals · Page 188 · Learn section · Part 1 of 4

## Learn

**How can you find the area of the board?**




You can use the equation $1.8 \times 2.9 = A$ to represent the problem.

You can use an area model to help you solve the equation.

Decompose each factor and find partial products.

Decompose by place value.

| | 2 | + | 0.9 |
|---|---|---|---|
| 1 | $2 \times 1 = 2$ | | $0.9 \times 1 = 0.9$ |
| + | | | |
| 0.8 | $2 \times 0.8 = 1.6$ | | $0.9 \times 0.8 = 0.72$ |

Find partial products by finding the area of each rectangle.

Add partial products.

$2 + 0.9 + 1.6 + 0.72 = 5.22$

The area of the board is 5.22 square meters.

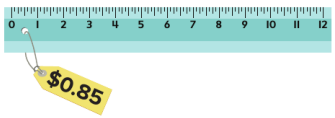
**Math is... Modeling**

How are the area models for decimals and whole numbers similar?

One multiplication strategy for multiplying decimals is to use an area model to determine partial products, which are then added to determine the product.

## Work Together

A teacher bought 18 rulers. What was the total cost of the rulers? Use an area model to solve.




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# Q25
FRQ

## Use an area model to determine partial products.

Lesson 6-4 · Use an Area Model To Multiply Decimals · Page 189 · Exercises 1–8 · Part 2 of 4

**What is the product? Use an area model to solve.**

1. $32 \times 1.5 =$ _____

2. $14 \times 2.3 =$ _____

3. $7.1 \times 8 =$ _____

4. $6.2 \times 1.5 =$ _____

5. $9.6 \times 5.5 =$ _____

6. $1.9 \times 2.4 =$ _____

7. A tent repair shop charges $9.50 for every 1 meter of stitching repaired on a tent. Michael brings in his tent for repairs. It needs 1.2 meters of stitching. How much will the repairs cost him?

8. **Error Analysis** Evelyn used an area model to multiply $7.4 \times 1.2$ as shown. How do you respond to her work?

| | 1 | + | 2 |
|---|---|---|---|
| 7 | $7 \times 1 = 7$ | | $7 \times 2 = 14$ |
| + | | | |
| 4 | $4 \times 1 = 4$ | | $4 \times 2 = 8$ |

$7 + 14 + 4 + 8 = 33$

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# Q25
FRQ

## Use partial quotients to solve division problems, which sometimes include a remainder.

Lesson 7-6 · Divide Multi-Digit Whole Numbers · Page 228 · Learn section · Part 3 of 4

## Learn

Rahim will fill bags with tortillas. He has bags that hold 12 tortillas and bags that hold 16 tortillas.

**Which size bag should he use if he wants no tortillas left over?**



276 tortillas

If Rahim uses the bags that hold 16 tortillas,
$276 \div 16 = b$.

$$\begin{array}{r|l} 16\overline{)276} & \\ -160 & 10 \\ \hline 116 & \\ -112 & 7 \\ \hline 4 & 17 \end{array}$$

The remainder is 4.

He will have 4 tortillas left over.

**Math is... Reasonableness**

How can you check your solution when there is a remainder?

If Rahim uses the bags that hold 12 tortillas,
$276 \div 12 = t$.

$$\begin{array}{r|l} 12\overline{)276} & \\ -240 & 20 \\ \hline 36 & \\ -36 & 3 \\ \hline 0 & 23 \end{array}$$

The remainder is 0.

He will have no tortillas left over.

Rahim should use bags of 12 tortillas.

You can use partial quotients to divide. Sometimes the quotient has a remainder.

## Work Together

What is the quotient?

$89\overline{)1,250}$

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# Q25
FRQ

## Use partial quotients to solve division problems, which sometimes include a remainder.

Lesson 7-6 · Divide Multi-Digit Whole Numbers · Page 229 · Exercises 1–5 · Part 4 of 4

**What is the quotient?**

**1.** 754 ÷ 13 = _____

**2.** 1,426 ÷ 46 = _____

**3.** 975 ÷ 64 = _____

**4.** 2,246 ÷ 27 = _____

**5.** **Error Analysis** Is this division correct? If not, explain the error and find the correct quotient.

```
84 ) 3,115
   −2,520 | 30
      595
     −504 |  6
       91 | 36
```

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