Unit 3
Lesson
3

Name _____ Date _____

TEKS 5.1.B, 5.1.F, 5.3.A

Miles of Fun

Let's record partial products.

Warm-Up eyes on teacher

We are a math community.
What does it mean to be a part of our math community?

Activity
1

Partial Products Everywhere

Estimate each product and write an equation. Then evaluate the expression using a partial products strategy.

Show your thinking.

Sample equations and work shown.

1 16 × 349

estimate equation:

16 × 300 = 4,800

300 × 16 = 4,800
40 × 16 = 640
9 × 16 = + 144
5,584

answer: 5,584

2 40 × 851

estimate equation:

40 × 800 = 32,000

800 × 40 = 32,000
50 × 40 = 2,000
1 × 40 = 40

answer: 34,040

Name _____ Date _____

Partial Products Everywhere (continued)

In 1969, the Apollo 11 mission traveled from Earth to the Moon. This fulfilled President John F. Kennedy's commitment to sending the first-ever astronauts to land on the moon and return safely to Earth.

Show your thinking. Sample work and equations shown.

3 Andrea wonders, "If Apollo 11 orbited the Moon for 21 hours with an average speed of 2,200 miler per hour, how many miles did Apollo 11 orbit around the Moon?"

estimate equation: 20 × 2,000 = 40,000

	2,000	200
20	40,000	4,000
1	2,000	200

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  40,000
   4,000
   2,000
+    200
  46,200
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answer: 46,200 miles

4 Andrea wonders, "If it took 76 hours for Apollo 11 to reach the Moon's orbit traveling at an average speed of 24,000 miles per hour, how many miles did Apollo 11 travel to reach the Moon's orbit?"

estimate equation: 80 × 20,000 = 1,600,000

20,000 × 70 = 1400,000
20,000 × 6 = 120,000
4,000 × 70 = 280,000
4,000 × 6 = 24,000

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    1
1,400,000
  120,000
  280,000
   24,000
+1,824,000
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answer: 1,824,000 miles