

Name: _____

Date: _____

Answer Key

Bicycle Multiplication Area Models

Cycle your way to the finish line!



Use the multiplication area model strategy to help find the answer.

Example: Sarah biked 347 inches per second for 28 seconds. Amy biked 350 inches per second in 28 seconds. How many more inches did Amy bike after 28 seconds?

AREA MODEL

	300	40	7
20	6000	800	140
8	2400	320	56

$$6000+2400+800+320+140+56=9716$$

AREA MODEL

	300	50	0
20	6000	1000	0
8	2400	400	0

$$6000 + 2400 + 1000 + 400 + 0 + 0 = 9800$$

$$\begin{array}{r} 9800 \\ - 9716 \\ \hline 84 \end{array}$$

1. Lexi biked 401 inches per second for 23 seconds. Rochelle biked 397 inches per second for 23 seconds. What's the difference between their distances after 23 seconds?

	400	0	1
20	8000	0	20
3	1200	0	3

$$8000+1200+0+0+20+3=9223$$

	300	90	7
20	6000	1800	140
3	900	270	21

$$6000+900+1800+270+140+21=9131$$

$$\begin{array}{r} 9223 \\ - 9131 \\ \hline 92 \end{array}$$

2. Chandler biked 286 inches per second for 19 seconds. Jeff biked 279 inches per second for 19 seconds. What's the difference between their distances after 19 seconds?

	200	80	6
10	2000	800	60
9	1800	720	54

$$2000+1800+800+720+60+54=5434$$

	200	70	9
10	2000	700	90
9	1800	630	81

$$2000+1800+700+630+90+81=5301$$

$$\begin{array}{r} 5434 \\ - 5301 \\ \hline 133 \end{array}$$

3. Lori biked 451 inches per second for 34 seconds. Patricia biked 432 inches per second for 34 seconds. What's the difference between their distances after 34 seconds?

	400	50	1
30	12000	1500	30
4	1600	200	4

$$12000+1600+1500+200+30+4=15334$$

	400	30	2
30	12000	900	60
4	1600	120	8

$$12000+1600+900+120+60+8=14688$$

$$\begin{array}{r} 15334 \\ - 14688 \\ \hline 646 \end{array}$$