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## ToPic 3 StuDy Guide

I. Dr. Peterson works about II hours each day. Which of the following can be used to find the best estimate of the number of hours he works in 48 days?
a. $10 \times 40$
b. $9 \times 50$
c. $10 \times 50$
d. $15 \times 45$
2. A banana contains 105 calories. Last week, Brendan and Lea ate a total of 14 bananas. How many calories does this represent? Show your work.
3. Four bags with 7 apples in each bag is the same amount as 7 bags with 4 apples in each bag. Which property of multiplication does this represent?
4. What product is equal to $4^{5}$
5. The latest mystery novel costs $\$ 24$. The table shows the sales of this novel by a bookstore. What is the total amount of sales on Saturday? Show your work.

| Day | Books <br> Sold |
| :---: | :---: |
| Thursday | 98 |
| Friday | 103 |
| Saturday | 157 |
| Sunday | 116 |

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Due Date: $\qquad$
6. Mr. Leim spends $\$ 24$ on parking each week. He works 48 weeks a year. How much does he spend on parking in a year? Show your work.
7. The average rainfall at Mt. Waialeala in Hawaii is 460 inches per year. How much rain would this location expect to receive in 5 years. Show your work.
8. Use compatible numbers to estimate $4 \times 26 \times 7$.
9. Kai has 35 baseball cards. Sharon has 6 times as many cards as Kai. Complete the picture, write an equation, and determine the number of baseball cards Sharon has.
$b$ cards

Sharon $\square$
Kai $\square$
10. Myra needs to order food for the school picnic. Use the price list to determine the cost of 16 packages of hot dogs, 16 packages of buns, and I bottle of ketchup. Show your work.

| Item | Price |
| :---: | :---: |
| Package of hot dogs | $\$ 5.00$ |
| Package of buns | $\$ 2.00$ |
| Bottle of ketchup | $\$ 1.00$ |

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II. Use the distributive property to complete each line of the equation below. $46 \times 12=46 \times(10+\ldots \ldots)$

$$
\begin{aligned}
& =(\ldots \ldots \times 10)+(\ldots \times 2) \\
& =\ldots \ldots+92 \\
& =\ldots
\end{aligned}
$$

12. Four buses are available for a field trip. Each bus can hold 48 people. Write an equation to find the number of people that can ride the buses. Use the picture to help.
$p$ people on buses

| 48 | 48 | 48 | 48 |
| :--- | :--- | :--- | :--- |

13. What number makes the number sentence true?
$(4 \times 8) \times 7=4 \times(8 \times$ $\qquad$
14. Sasha bikes 25 miles every day for two weeks. How many miles does she bike during this time? Show your work.
15. Write fifteen cubed in exponential notation, expanded form, and standard form.
