

Homework & Practice 4-1

Mental Math: Multiply Multiples of 10

Another Look!

A kindergarten teacher wants to buy individual boxes of crayons for her students. Each box contains 50 crayons. How many crayons will she have if she buys 30 boxes of crayons?

Use a pattern to find 50×30 .

$$5 \times 3 = 15$$

$$50 \times 3 = 150$$

$$50 \times 30 = 1,500$$

So, $50 \times 30 = 1,500$.

The kindergarten teacher will have 1,500 crayons.

You can multiply with mental math by using basic facts and place-value strategies.



For **1–12**, use basic facts and place-value strategies to find each product.

1. $2 \times 2 =$ _____

$20 \times 2 =$ _____

$20 \times 20 =$ _____

2. $6 \times 3 =$ _____

$60 \times 3 =$ _____

$60 \times 30 =$ _____

3. $5 \times 6 =$ _____

$50 \times 6 =$ _____

$50 \times 60 =$ _____

4. 30×80

5. 60×60

6. 50×90

7. 30×70

8. 70×60

9. 40×50

10. 10×90

11. 40×10

12. 10×50

For **13–21**, find the missing factor.

13. $10 \times$ _____ $= 200$

14. $40 \times$ _____ $= 3,600$

15. $50 \times$ _____ $= 4,000$

16. $70 \times$ _____ $= 700$

17. $30 \times$ _____ $= 2,700$

18. _____ $\times 70 = 3,500$

19. _____ $\times 90 = 7,200$

20. $20 \times$ _____ $= 1,800$

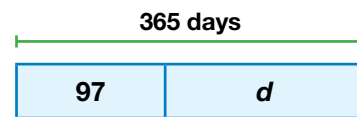
21. $40 \times$ _____ $= 3,200$

22. **Algebra** Ms. Marks records the number of words each typist can type in 1 minute. How many more words could the fastest typist type in 30 minutes than the slowest typist? Use place-value strategies. Write and solve equations.

| Typing Rates in 1 min | |
|-----------------------|-------|
| Typist | Words |
| Lavon | 50 |
| Jerome | 40 |
| Charlie | 60 |

23. Amy says, "To find 50×20 , I multiply 5×2 and then place the total number of zeros in both factors at the end." Do you agree? Explain.

24. **Algebra** If in one year a city recorded a total of 97 rainy days, how many of the days did it **NOT** rain? Write and solve an equation.



25. Name two 2-digit factors whose product is greater than 200 but less than 600.

26. **Higher Order Thinking** For every 30 minutes of television airtime, there are 8 minutes of commercials. If 90 minutes of television are aired, how many minutes of commercials will there be?

Common Core Assessment

27. The product of two factors is 7,200. If one of the factors is 90, what is the other factor?
- (A) 8,000 (C) 80
 (B) 800 (D) 8
28. Derek solved 1,400 math problems in 70 days. If Derek solved the same number of math problems each day, how many math problems did Derek solve each day?
- (A) 2 (C) 200
 (B) 20 (D) 2,000

