LESSON MAKER PRO

Pattern Power

Use number structure to solve real situations.

GRADE 6 · 6.MP.7

6.MP.7 "Look for and make use of structure."

NAME _____ DATE _____

SPOT THE STRUCTURE

When a situation has equal groups, look for a structure that makes the multiplication easier. You can break a factor into parts or use a nearby fact, then combine or adjust the results. Check whether your answer is reasonable by estimating.

WORKED EXAMPLE

A volunteer packs 8 bags with 13 snacks in each bag. How many snacks are packed?

1. Break 13 into 10 + 3.
2. Multiply: 8 x 10 = 80 and 8 x 3 = 24.
3. Add: 80 + 24 = 104.

Answer: 104 snacks

PRACTICE 6 problems

1 The art club puts 19 photos on each of 6 display boards. Use a nearby fact or break apart a number. How many photos are on the boards?

ANSWER _____

2 A player earns 15 coins for each of 7 completed quests. Show a helpful structure. How many coins does the player earn?

ANSWER _____

3 A school event has 9 tables with 12 name tags at each table. Break apart a factor or use a nearby fact. How many name tags are there?

ANSWER _____

4 The science club prepares 14 packets with 6 seed samples in each packet. Use structure to find the total number of samples.

ANSWER _____

5 A fundraiser sells 25 bundles with 4 raffle tickets in each bundle. Use a pattern or friendly fact. How many tickets are sold?

ANSWER _____

6 A student practices guitar for 18 minutes on each of 11 days. Use structure to find the total practice time.

ANSWER _____

APPLY IT Show your work

1 The school esports club earns $16 from each of 9 snack bundles. The club spends $27 on signs for its event. Use structure to find how much money the club has left.

WORK SPACE

ANSWER _____

2 At a school concert, there are 21 rows with 7 seats in each row. Use a nearby fact to find the total number of seats.

WORK SPACE

ANSWER _____

CHALLENGE One step up

At a community game night, an organizer fills 18 prize bags with 17 game tokens in each bag and sets aside 26 extra tokens. How many tokens are there altogether? Explain a structure you used.

WORK SPACE AND ANSWER

ANSWER KEY # Pattern Power

GRADE 6 · 6.MP.7

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	The art club puts 19 photos on each of 6 display boards. Use a nearby fact or break apart a number. How many photos are on the boards?	**114 photos**
2	A player earns 15 coins for each of 7 completed quests. Show a helpful structure. How many coins does the player earn?	**105 coins**
3	A school event has 9 tables with 12 name tags at each table. Break apart a factor or use a nearby fact. How many name tags are there?	**108 name tags**
4	The science club prepares 14 packets with 6 seed samples in each packet. Use structure to find the total number of samples.	**84 seed samples**
5	A fundraiser sells 25 bundles with 4 raffle tickets in each bundle. Use a pattern or friendly fact. How many tickets are sold?	**100 raffle tickets**
6	A student practices guitar for 18 minutes on each of 11 days. Use structure to find the total practice time.	**198 minutes**

PART 2 · APPLY IT

1. **$117** Find the earnings with 16 x 9 = 144, using 16 x (10 - 1). Then subtract 27: 144 - 27 = 117.
2. **147 seats** Use 21 x 7 = (20 + 1) x 7. Add 140 and 7 to get 147.

CHALLENGE

332 tokens

Accept any correct strategy that uses a nearby fact, breaking apart a factor, or another clear number structure. For the challenge, accept equivalent explanations and require the total of 332 tokens.