

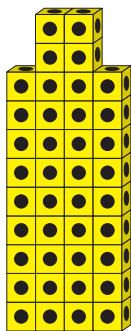
Student Activity Book

**City Buildings (SAB pp. 529–530)
Questions 1–2**

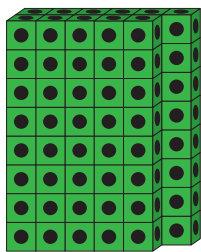
Name _____ Date _____

City Buildings

1. Use cubes to make buildings that look like the three pictures below. Find the volume of each building and write a number sentence to show your strategy. Include units.



Building A



Building B

Volume _____
Number sentence _____

Volume _____
Number sentence _____



Building C

Volume _____
Number sentence _____

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1. * Building A: 40 cubic units

Possible number sentences:

$$9 + 11 + 11 + 9 = 40$$

$$36 + 4 = 40$$

$$20 + 20 = 40$$

- Building B: 88 cubic units

Possible number sentences:

$$16 + 16 + 16 + 16 + 16 + 8 = 88$$

$$8 + 8 + 8 + 8 + 8 + 8 + 8 + 8 + 8 + 8 + 8 + 8 = 88$$

$$11 + 11 + 11 + 11 + 11 + 11 + 11 + 11 = 88$$

- Building C: 18 cubic units

Possible number sentences:

$$10 + 6 + 2 = 18$$

$$5 + 5 + 3 + 3 + 1 + 1 = 18$$

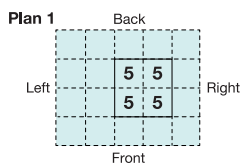
$$2 + 4 + 6 + 4 + 2 = 18$$

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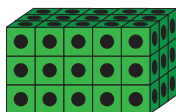
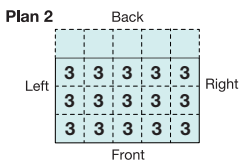
Name _____ Date _____

Match Up

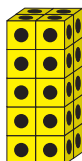
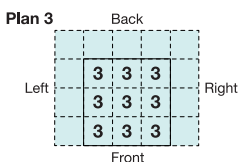
2. Which building goes with which building plan? Draw a line from the plan to the matching building. Be ready to explain how you know.



Building W



Building X



Building Y

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2. Plan 1, Building Y

Building Y is the only building with columns that are 5 units tall.

- Plan 2, Building X

Building X from left to right is 5 units long and 3 units tall.

- Plan 3, Building W

Building W is 3 units from left to right and 3 units tall.

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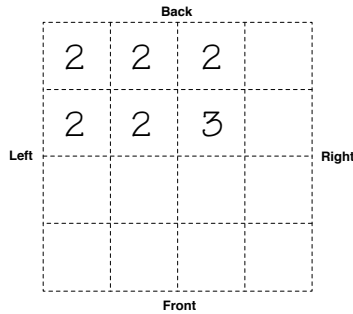
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*Answers and/or discussion are included in the lesson.

Building Detective (SAB pp. 531–534)

Questions 1–3

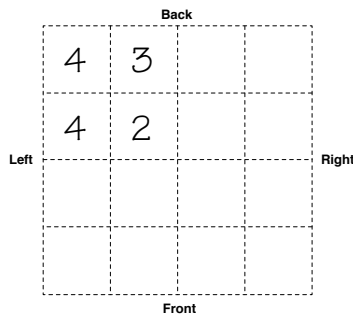
1. **A.*** Buildings and building plans will vary. Possible building plan for Romesh’s number sentence:



B.* The tallest column in this plan is 3 units.

C.* $2 + 2 + 2 + 2 + 2 + 3 = 13$ cubic units

2. **A.*** Responses will vary. Possible building plan with same volume as Romesh’s building:



B.* $4 + 4 + 3 + 2 = 13$ cubic units

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Name _____ Date _____

Building Detective

1. **A.** Construct a building and draw a building plan that matches Romesh’s number sentence.

Building Plan for Romesh’s Building

$6 + 6 + 1 = 13$ cubic units

B. Height of tallest column _____

C. Volume _____

Remember to label your units.

Buildings and Plans SAB • Grade 2 • Unit 10 • Lesson 4 **531**

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Name _____ Date _____

2. **A.** Construct a different building with the same volume as Romesh’s building. Draw your building plan.

Building Plan for My Building

B. Write a number sentence for your building.

Number sentence _____

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*Answers and/or discussion are included in the lesson.

3. A. Romesh used 13 cubes to make this building plan. He forgot to fill in one part of the plan. Find the missing number. Write a number sentence.

2	4	1
1	?	2

Number sentence _____

- B. Show or tell how you found the missing number.

3. A. Missing number is 3; Number sentences will vary. Possible number sentence: $2 + 4 + 1 + 1 + 3 + 2 = 13$ cubic units
- B. Possible response: I know the volume is 13 cubic units, so I started with 13 and subtracted the values that were listed on the building plan. $13 - 2 = 11$; $11 - 4 = 7$; $7 - 1 = 6$; $6 - 1 = 5$; $5 - 2 = 3$, so I know that 3 is the missing value.

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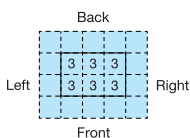
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Name _____ Date _____

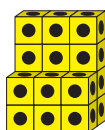
Match Up



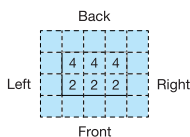
Match each building plan with the picture of the building and connect them with a line. Then tell what number sentence goes with each Building Plan.



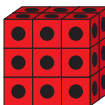
Building Plan 1



Chair Building



Building Plan 2



Box Building

$3 + 3 + 3 + 3 + 3 + 3 = 18$

Building Plan _____

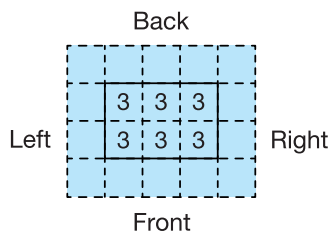
$2 + 2 + 2 + 4 + 4 + 4 = 18$

Building Plan _____

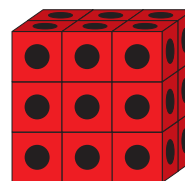
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Teacher Guide

**Match Up (TG)
Homework**



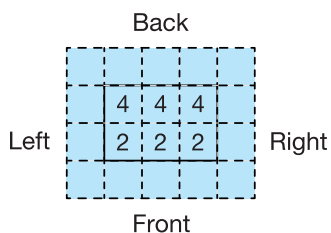
Building Plan 1



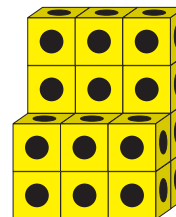
Box Building

$3 + 3 + 3 + 3 + 3 + 3 = 18$

Building Plan 1



Building Plan 2



Chair Building

$2 + 2 + 2 + 4 + 4 + 4 = 18$

Building Plan 2

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