



**NEW ENGLAND
COMMON ASSESSMENT PROGRAM**

**Student Work Samples
2007**

Grade 8



Mathematics



11

-3

-2

$$|-3| = 3$$

$$|-2| = 2$$



11

-12 ; 5



11

-6 and 6



11

12 24

12

5 Sides

12



$$\begin{array}{r} 2180 \\ \times \quad 3 \\ \hline 540^\circ \end{array}$$

The polygon has 5 sides

12

540

$$\begin{array}{r} 90 \\ 6 \overline{) 540} \\ \underline{54} \\ 0 \end{array}$$

6

12

$$540^\circ \div 180^\circ = 3$$

The polygon would have 3 angles because there is 180° angle. $540 \div 180 = 3$.



13

* $8m$ = how much she earns

* $8m - 4$ = how much he earns

Morgan worked the full hours so she gets full credit for the hours she worked.

Since Ted came $\frac{1}{2}$ an hour late, he was deducted 4 dollars, the 4 he didn't work for.



13

Morgan - \$8.00 m
Ted - ~~\$8.00~~ m - \$4.00



13

A.

\$8 per hour \cdot M hours Morgan worked
 $8M$

B.

\$8 per hour \cdot (M hours Morgan worked $- \frac{1}{2}$ hour)

$$8(M - \frac{1}{2})$$



13

$$A. \quad m \times 8 =$$



13

a. $8m$

b. $8m - \frac{1}{2}$



13

A. $m = \$4$ Morgan

B. $M = \cancel{\$} 8$ Ted.

14

$$\begin{array}{r} 35.4 \\ 30.9 \\ 29.6 \\ 30.3 \\ + 31.3 \\ \hline 157.5 \end{array}$$

$\overline{31.5}$ is the Mean

$\overline{31.5}$ *

14

The correct mean is 31.5

14

$$\begin{array}{r} 12 \\ 35.4 \\ 20.9 \\ 29.6 \\ 30.3 \\ 31.3 \\ \hline 157.5 \end{array}$$

$$\begin{array}{r} 30.15 \\ 5 \overline{) 157.5} \\ \underline{15} \\ 075 \\ \underline{75} \\ 0 \end{array}$$

30.15

14

you add 3.8 to all of
the schools test meaning.

Bayview - 3.89

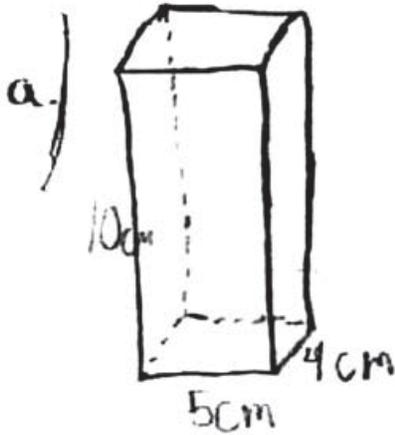
Mountain top - 3.44

Sunset - 29.6

Evergreen - 33.8

Gateway - 34.8

15



$$B = bh$$

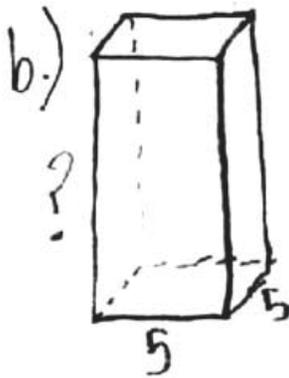
$$B = 5 \cdot 4$$

$$B = 20$$

$$V = Bh$$

$$V = 20 \cdot 10$$

$$V = 200 \text{ cm}^3$$



1)

$$B = bh$$

$$B = 5 \cdot 5$$

$$B = 25$$

$$V = Bh$$

$$3) V = 25 \cdot 8$$

$$V = 200 \text{ cm}^3$$

$$h = V \div B$$

$$2) h = 200 \div 25$$

$$h = 8 \leftarrow \text{answer}$$

15

$$a. 200 \text{ cm}^3$$

(area of) $b \times h$

$$b = 20$$

$$h = 10$$

$$b. 5 \times 5 = 25$$

$$25 \times 8 = 200$$

$$\text{height} = 8$$

15

$$a. V = 200 \text{ cm}^3$$

$$V = \text{area of base} \cdot h$$

$$V = B \cdot h$$

$$5 \cdot 4 = 20$$

$$20 \cdot h$$

$$20 \cdot 10 =$$

$$200 \text{ cm}^3$$

$$b. 5 \cdot 5 = 25 \quad 25 \cdot 8 =$$

$$25 \cdot h = 200$$

$$25 \cdot 8 = 200 \text{ cm}^3$$

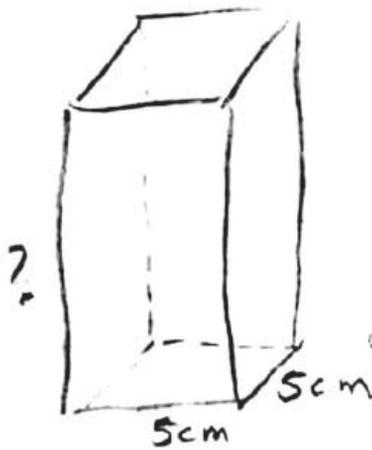
$$25 \text{ cm} \cdot 8 \text{ cm} = 200 \text{ cm}^3$$

15

a) 208 in cubic centimeters

$$V = L \times W \times h \\ 4 \times 5 \times 10 = 208 \text{ cm}$$

b)



$$V = L \times W \times h = 208$$

$$V = 5 \times 5 \times h = 208$$

$$V = \frac{25 \times h}{25} = \frac{208}{25}$$

$$V = 8.32 \text{ cm}$$

15

a) $10 \cdot 5 \cdot 4$
 $10 \cdot 20$
 200_{cm^2}

b) $5 \cdot 5 \cdot x = 200$
 $20 \cdot x = 200$

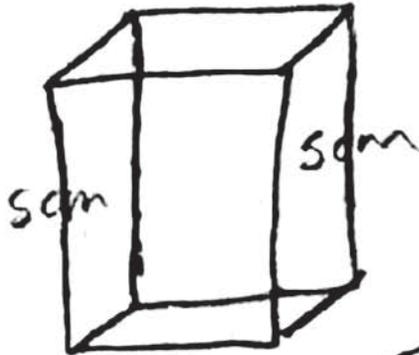
 $x = 10$

15

$$a. 10 \cdot 5 \cdot 4 = 200$$

$$\hat{50} \cdot 4 = 200 \text{ cubic centimeters.}$$

b.



40

$$200 \div 5 = 40$$

$$40 \div 2 = 20$$

20cm

15

A. its 200

B. its 8

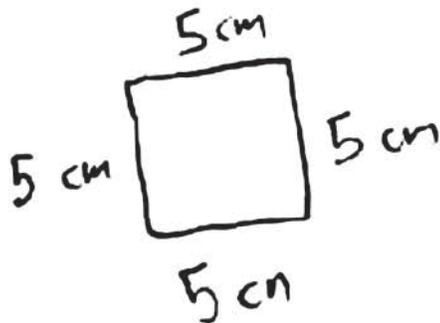
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(A) 180 cm because the base is

$5 \text{ cm} \times 4 = 18 \text{ cm}$ then height is 10 cm so

$$18 \text{ cm} \times 10 \text{ cm} = 180 \text{ cm}$$

(B)



5 cm base / 5 cm height

$$5 \times 5 = 25$$

ANSWER = 25

15

A. The volume in cubic cm is 40 because the length is 10 and the width is 4 and you do $10 \times 4 = 40$ to get the answer.

B. If the volume is the same as A and the side lengths are 5 the width is 8 because $8 \times 5 = 40$.