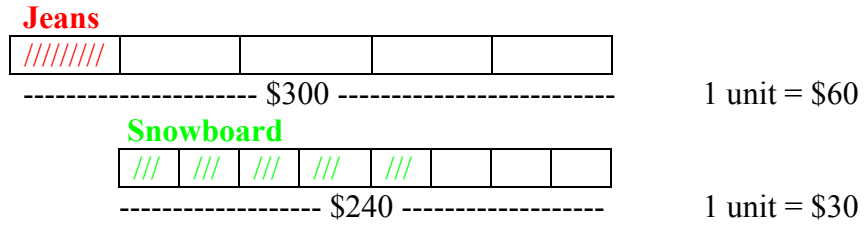


Grade 5 Model Drawing Problems
Submitted by Martha Hunt

1. Melissa got \$300 for Christmas from her family. The day after Christmas she went shopping. She spent $\frac{1}{5}$ of her money on a pair of jeans and $\frac{5}{8}$ of the remainder on a snowboard. How much money did the snowboard cost and how much money did Melissa have left?
2. Bobby spent $\frac{1}{3}$ of his time studying for his history test and $\frac{2}{3}$ of the remainder doing his math problems. If Bobby spent 90 minutes altogether on his homework, how much time did he spend on his math problems?
3. The ratio of rock to rap CD's in Dan's collection is 2:5. Sadly Dan has only rock and rap CD's in his collection. If Dan has 16 rock CD's how many does Dan have altogether?
4. Dan and Justin have 180 CD's altogether. The ratio of Dan's to Justin's CD's is 2:7. How many CD's do Dan and Justin each have?
5. Emily spends 60% of her waking time (on weekdays) going to school, 20% watching TV and 25% of the remainder talking to her friends on the telephone. Emily sleeps for 9 hours each weekday. How much time does Emily spend each weekday talking on the phone each weekday?

Solutions

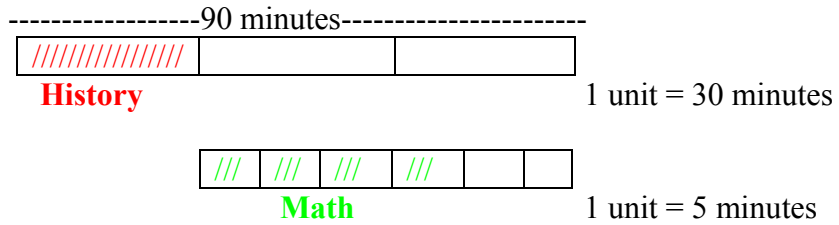
1.



So snowboard = $5 \times \$30 = \150

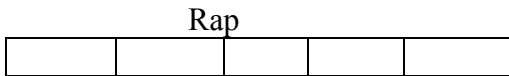
Melissa has $3 \times \$30 = \90 left.

2.



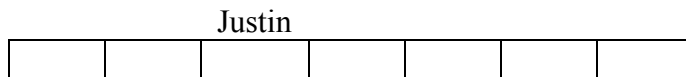
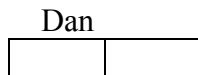
Bobby spends $4 \times 5 = 20$ minutes doing math problems.

3.



Dan has $5 \times 8 = 40$ rap CD's so Dan has $16 + 40 = 56$ CD's altogether.

4.



Dan + Justin = 180 CD's

1 unit = $180 \div 9 = 20$ CD's.

Dan has $2 \times 20 = 40$ CD's and Justin has $7 \times 20 = 140$ CD's.

5.

-----15 hours awake -----

| | | |
|--------------|----------|---------------|
| 60% = School | 20% = TV | ? = Remainder |
|--------------|----------|---------------|

$100\% - 60\% - 20\% = 20\%$. So 20% time not spent on school or TV.

$20\% \times 15 \text{ hours} = 3 \text{ hours}$ not spent on school or TV

$25\% \times 3 \text{ hours} = \frac{1}{4} \times 3 \text{ hours} = \frac{3}{4} \text{ hour} = 45 \text{ minutes}$ on the telephone.

Emily spend 45 minutes on the telephone talking with friends on weekdays.