

### Problem # 4

Brad is a student at Cabot School. Before leaving for school he needs to:

- Eat Breakfast - 15 minutes
- Get Dressed - 12 minutes

- Make lunch and load pack - 10 minutes
- Brush his teeth - 3 minutes

1. How long does it take Brad to do the tasks listed above?

$$\begin{array}{r}
 15 \\
 + 12 \\
 + 10 \\
 + 3 \\
 \hline
 40 \text{ minutes}
 \end{array}$$

2. If it takes Brad 20 minutes to walk to school and he wants to arrive at school at 8:20 am, what time does he need to leave the house? If he needs to do the tasks listed above before he leaves, what time does he need to get up in the morning?

① 8:00 because if he leaves at 8:00 and it takes him 20 min to get to school he'll arrive at 8:20.

② 7:20 because  $8:20 - 40 = 7:20$

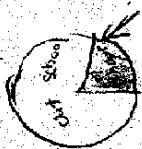
3. If Brad requires 9 hours and 40 minutes of rest to do his best work, what time does he need to fall asleep? 9:40 because if he needs to get up at 7:20 you count back 9 hrs and 40 min and it will be 9:40 at night.

4. Brad stays in school until 3:00pm Monday, Wednesday, Thursday and Friday. On Tuesday he gets out of school at 12:30. How many hours each week is Brad in school?

$\begin{array}{r}
 160 \\
 120 \\
 \hline
 40
 \end{array}$ 
  
 $\begin{array}{r}
 6:40 \\
 6:40 \\
 6:40 \\
 \hline
 20:40
 \end{array}$ 
  
 $\begin{array}{r}
 14:60 \\
 - 8:20 \\
 \hline
 6:40
 \end{array}$ 
  
 $\begin{array}{r}
 12:30 \\
 - 8:20 \\
 \hline
 4:10 \text{ - Tuesday} \\
 + 26:40 \text{ - M, W, Th, F} \\
 \hline
 30:50
 \end{array}$

5. What percentage of the week (7 days) does Brad spend at school? Using a circle graph, display the amount of time Brad spends in school and the amount of time he spends out of school. Explain how you got to your answer. Tell us what assumptions you made.

18 percent because there are 168 hours in a week and he spends almost 31 hrs at school each week so  $\frac{31}{168}$  is the fraction of the time he spends at school, which is 18%

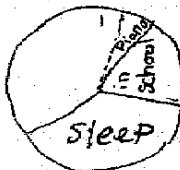


$$\begin{array}{r}
 168 \\
 \times 21 \\
 \hline
 168
 \end{array}$$
  

$$\begin{array}{r}
 168 \overline{) 31.00} \\
 - 00 \\
 \hline
 31.0 \\
 - 16.8 \\
 \hline
 14.20 \\
 - 13.44 \\
 \hline
 00.76
 \end{array}$$

6. Approximately how many hours each week do you sleep? Pick one other activity that you do on a typical week. Make a graph comparing the time you spend in school with sleeping and with this other activity.

$19 \times 7 = 63$



$$\frac{7 - \text{Piano}}{168} = 4\%$$
  

$$\frac{63}{168} = 37\%$$