Questions 1-4 refer to the velocity-time graph of a car's motion:

1. In which section is the car accelerating from rest? $a$
2. In which section is the car's acceleration negative? $\qquad$
3. How far does the car travel during section "b"? $60 \mathrm{~m} \quad(12 \mathrm{~m} / \mathrm{s} \times 5 \mathrm{~s})$
4. What is the acceleration of the car in each section? acceleration $=$ slope of line
a $\quad 3 \mathrm{~m} / \mathrm{s}^{2}$
b $\quad 0 \mathrm{~m} / \mathrm{s}^{2}$
c $-3 \mathrm{~m} / \mathrm{s}^{2}$ d $\quad 1 \mathrm{~m} / \mathrm{s}^{2}$

Questions 5-10 refer to displacement-time graph of a carts motion:

5. In which section(s) is the cart accelerating? b-c; d-e
6. In which section(s) is the cart not moving? a-b;e-f
7. In which section(s) is the cart moving backwards? $\qquad$
8. In which section(s) is the cart's instantaneous velocity at any time equal to its average velocity? c-d;f-g (also a-b;e-f)
9. What is the velocity of the cart in these sections?
velocity $=$ slope of line
$a-b$ $\qquad$ c-d $\qquad$ e-f $\qquad$ $\mathrm{f}-\mathrm{g} \xrightarrow{-3 \mathrm{~m} / \mathrm{s}}$
10. How far does the cart move in section $b-c$ ? $\qquad$ e-f? $0 m$ PHYSICSFundamentals

