# Pre－Algebra <br> Secondary Education <br> MAFS．8．F．1．2 

Calculator Allowed for this Standard

Name： $\qquad$ Date： $\qquad$
$\qquad$
1．Which function below has the greater rate of change？
A．$y=6 x+4$
B．

| $x$ | $y$ |
| :---: | :---: |
| 0 | 0 |
| 1 | 7 |
| 2 | 14 |
| 3 | 21 |

2．Write a function that has a greater rate of change than one function but a smaller rate of change than the other function．

| $x$ | $y$ |
| :---: | :---: |
| 4 | 0 |
| 8 | 2 |
| 12 | 4 |
| 16 | 6 |

$\square$


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3．An Indy race car can travel a straight－a－way at 230 miles per hour．The graph below shows the speed of an NHRA Top Fuel dragster．


What is the difference in their speed in miles per hour？
A． 30
B． 50
C． 70
D． 90

4．Mike and Tony are private baseball hitting instructors．Mike charges $\$ 12$ for travel expenses and $\$ 35$ per hour of instruction．Tony＇s fee can be modeled by the equation $C=32 h+20$ ，where $h$ is the number of hours of hitting instruction．Both Mike and Tony will be giving four hours of hitting instruction at different baseball camps．What is the difference in the total fee Mike and Tony charge for 4 hours of instruction？
$\square$

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5．Two different companies charge a set－fee plus an hourly rate to rent a dunk tank for local carnivals．The table and graph below show the total cost of renting each company＇s dunk tank， depending on the number of hours the tank is rented．

Big Top Carnival
Rentals

| Time <br> （Hours） | Total Cost <br> （Dollars） |
| :---: | :---: |
| 2 | 28 |
| 4 | 42 |
| 6 | 56 |
| 8 | 70 |



Time（in hours）

At how many hours would the two companies have the same total cost of renting their dunk tank？


