

2. What is the sum of the two vectors ↘ and ↙?



3. If a car starts off moving to the east → and then later moves south ↓, what is the direction of the car's acceleration?

northwest

northeast

**southwest**

southeast

4. Figure 4 is a motion diagram that shows a rocket that is

slowing down as it lands

speeding up as it lands

**slowing down as it takes off**

speeding up as it takes off



Fig. 4

5. If a boat has a velocity that points to the east → and experiences an acceleration that points to the southwest ↙, then the boat is

speeding up

**slowing down**

moving at constant speed

6. Figure 6 shows the graph of an object's position versus time.

Which of these is the correct velocity graph?

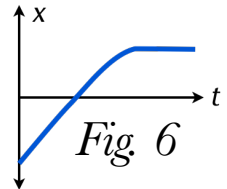
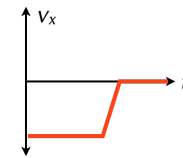
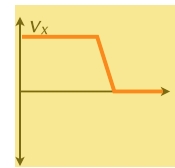
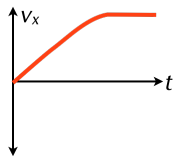
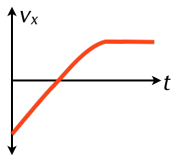


Fig. 6

7. Consider this problem: "I drop a ball from 2 meters above the ground. How long does it take to reach the ground?" Which variable is my Don't-Know-Don't-Care variable (that is, the variable we aren't given and which we're not solving for.)

$\Delta x$

$v_i$

**$v_f$**

$a$

$t$