Name KEY Date Period

Unit 7-1 and Unit 7-2 Review

Directions: For numbers 1-4, define the following words.

1. Define force:
   See notes
2. Define acceleration:
   See notes
3. Define reference point :
   See notes
4. Define net force :
   See note

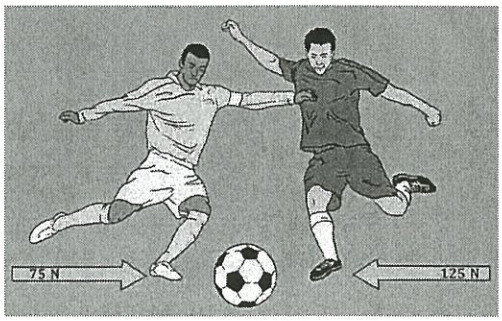
5. What is the unit for force? Newtons
6. Write the formula for the following:
   a. Speed = $S = \frac{d}{t}$
   b. Time = $t = \frac{d}{s}$
   c. Distance = $d = S(t)$
   d. Velocity = $V = \frac{d}{t}$

* memorize these formulas for quiz

Directions: For numbers 7-9, write the formula, show all work and remember your labels. * include directions

7. Abe walked 300 meters in 15 seconds. What was his average speed?
   $S = \frac{d}{t}$ $S = \frac{300\text{ m}}{15\text{ sec}}$ $S = 20\text{ m/sec}$
8. A train went 275 miles east in 3 hours. What was the train's velocity?
   $V = \frac{d}{t}$ $V = \frac{275\text{ miles}}{3\text{ hours}}$ $V = 91.7\text{ mph east}$
9. Tim swam 12.6 miles at a speed of 6 miles per hour. **How much time** did it take him?
   $t = \frac{d}{s}$ $t = \frac{12.6\text{ miles}}{6\text{ m/h}}$ $t = 2.1\text{ hours}$

Directions: <u>Use the diagram below to answer question 9.</u>



10. If these forces are applied to the soccer ball at the same time, what will occur?
    a. The ball will move to the left.
    b. The ball will move to the right.
    c. The ball will alternate between moving left and right.
    d. The ball will remain stationary.

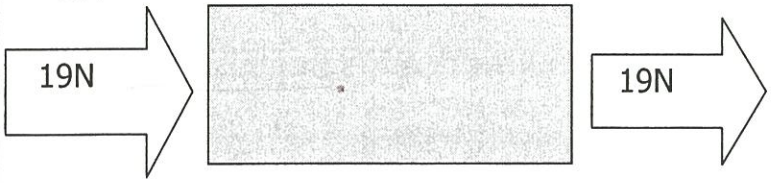
11. Write two ways to decelerate.
    a. go uphill
    b. press brakes

12. Define balanced force:
    See notes

13 . What is the difference between speed and velocity?
    velocity includes direction

<u>Determine the Net forces below. Be sure to include the correct label and direction.</u>

17.

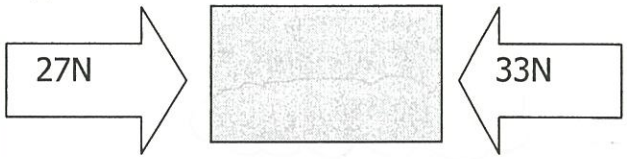


Net Force Formula- 19N + 19N

Net Force= 38 N right

Circle one: Balanced or Unbalanced Forces

18.



Net Force Formula- 33N - 27N

Net Force= 6N left

Circle one: Balanced or Unbalanced Forces