Quizlet

DATE
~~NAME~~ _____

29 Matching questions

1. [ ] What does t represent in particle motion?
2. [ ] When the acceleration of a particle is negative, what does that mean for the particle's velocity?
3. [ ] What equation(s) represent velocity?
4. [ ] When is a particle moving to the right?
5. [ ] When the acceleration of a particle is positive, what does that mean for the particle's velocity?
6. [ ] Particle motion generally happens along which straight line?
7. [ ] When is the speed of a particle decreasing?
8. [ ] What equation(s) represents position?
9. [ ] When velocity and acceleration have the opposite sign, what does that mean for the speed of a particle?
10. [ ] When velocity and acceleration have the same sign, what does that mean for the speed of a particle?
11. [ ] When velocity is negative, what direction is a particle moving?
12. [ ] When velocity is positive, what direction is a particle moving?
13. [ ] What does a(t) determine?
14. [ ] What does x(t) represent?

a. |v(t)|

b. position of a particle

c. t=0
time is zero

d. ~~Integral of the absolute value of v(t) dt~~

e. x-axis

f. v(t) is increasing when a(t) is positive.

g. v(t)
x'(t)
~~integral (a(t)) dt~~

h. A particle moves to the right when v(t) is positive.

i. A particle is moving to the right when velocity is positive.

j. A particle is moving to the left when velocity is negative.

k.
How fast the position of the particle is changing AND in what direction.

l. v(t) is decreasing when a(t) is negative.

m. A particle moves to the left when v(t) is negative.

n. x(t) or s(t)
~~integral (v(t)) dt~~
~~Integral (integral (a(t)) dt) dt~~

o. A particle changes direction when velocity changes sign.

p. velocity of a particle

q. time

r.
Speed is increasing when velocity and acceleration have the same sign.

s. Speed is increasing.

15. [ ] What does the phrase "at the origin" mean in particle motion?

16. [ ] When does a particle change direction?

17. [ ] When is a particle's velocity increasing?

18. [ ] What does |v(t)| determine?

19. [ ] What does a(t) represent?

20. [ ] When is a particle's velocity decreasing?

21. [ ] What equation(s) represent acceleration?

22. [ ] What does v(t) determine?

23. [ ] What does v(t) represent?

24. [ ] How is the speed of a particle calculated?

25. [ ] When is the speed of a particle increasing?

26. [ ] What does the phrase "at rest" mean in particle motion

27. [ ] What does the phrase "initially" mean in particle motion?

~~28. [ ] How is the total distance traveled by a particle calculated?~~

29. [ ] When is a particle moving to the left?

t velocity is decreasing when acceleration is negative

u x(t)=0
position is zero

v a(t) determines how fast the velocity of a particle is changing.

w Speed is decreasing.

x v(t)=0
velocity is zero

y acceleration

z

Speed is decreasing when velocity and acceleration have opposite signs.

aa a(t)
v'(t)
x''(t)

ab |v(t)| determines the speed of a particle

ac velocity is increasing when acceleration is positive