

Distance, Rate, and Time

$$d = rt$$

$$r = d/t$$

$$t = d/r$$

1. You're going to a movie and it starts at 2:00! You need to get there 10 minutes early to park and buy a ticket. The theater is 25 miles away and the speed limit is 60 miles per hour (miles/hour or mph) the whole way. What time do you need to leave to get to the theater on time without speeding?

2. You're stuck behind a tractor with a top speed of 20 miles/hour. You drive behind it for 10 minutes before you can pass it. How far did you travel behind the tractor? How far would you have traveled if you were stuck behind it for 25 minutes?

3. You have a 10 mile trip to take. How long will it take you to drive 10 miles if you're going 40 miles/hour? What about 55 miles/hour? How long would it take if you drove at 70 miles/hour?

Speeding, or driving faster than the speed limit, is a common strategy used by people who are running late, but most people don't do the math beforehand! How much time would you save by taking your 10 mile trip at 70 mph instead of 55 mph (the speed limit on that road)?

What are some risks of speeding? Do you think saving that much time is worth taking these risks?
