

THE PEARLSBURG RESCUE SQUAD

The Pearlsburg (West Virginia) Rescue Squad serves a mountainous, rural area in southern West Virginia. The only access to the homes, farms, and small crossroad communities and villages is a network of dirt, gravel, and poorly paved roads. The rescue squad had just returned from an emergency at Blake's Crossing, and two of the squad members, Melanie Hart and Ben Cross, were cleaning up and getting the truck back in proper order for the next call.

"You know, Ben," said Melanie, "that was close. We could have lost little Randy if we had been a few minutes later in getting to their farm."

"Yep," said Ben.

After a moment Melanie continued, "I was sort of wondering about the route Dave took to get there. It seems to me if we had gone around by Cedar Creek, we could have gotten there a few minutes sooner. And as close as things got, a few minutes could have made a big difference, don't you think?"

"Yep," said Ben.

"Well, I was wondering, Ben, why don't we study all these different ways to get to the little communities and farms around here so we will always know what the quickest way to all the different places is?"

Ben thought a moment before answering. "It would take us a while to time all the different ways you could get from here to everywhere we go."

"That's true," Melanie answered, "but I've been studying a way to work out this sort of problem in one of my college courses. All we have to do is get the times it takes to travel each piece of road between all these little communities, and I think I can do the rest. Will you help me?"

"Sure," Ben said.

"Okay, then, here's what we'll do. I'll write down all the routes you should time, and I'll time the rest all the way over to Holbrook."

Here is the combined list of times (in minutes) Melanie and Ben compiled for all the route segments between Pearlsburg and Holbrook: