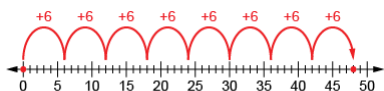# Activity 28 Assessment
Whole Number Rates

Representing Multiplicative Relationships as Rates

Solves unit rate problems concretely and pictorially	Uses various tools to solve multiple unit rate problems.	Uses inverse relationships to record and solve unit rate problems	Flexibly applies multiplicative reasoning to solve different types of unit rate problems.
It takes 6 apples to make an apple pie. How many apples are needed to make 9 pies?	Kiran and Simi walk 30 km. Kiran walks 5 km per hour and Simi walks 6 km in one hour. How long will it take each person to walk 30 km?	Marc paddled a canoe 10 km in 150 minutes. At what rate did he paddle?	Shila cuts lawns in the neighborhood and charges $7/hour. If Shila works for 6 hours each week, how many hours will Shila need to work to make $168?

"I used a number line to show how the number of apples increases as the number of pies increases."

Hours	1	2	3	4	5	6
Kiran (km)	5	10	15	20	25	30
Sami (km)	6	12	18	24	30	?

"I used a ratio table. It makes it easy to make comparisons and to solve the problem."

Minutes	150	15
Marc (km)	10	1

$÷10$

"10 km × **rate per minute** = 150 minutes
I thought division: 150 ÷ 10 = ?
I know 10 × **15** = 150.
So, Marc paddled at the
rate of 15 km per minute."

Hours	6	12	18	24
Earnings ($)	42	84	126	168

"I know that Shila makes $42 a week (7 × 6 = 42). From the ratio table, Shila will make $168 dollars after 24 hours of work."

Observations/Documentation