Math 120 Intermediate Algebra

Solving Applications Using Rational Equations

Ex 1 (# 12) The reciprocal of the product of two consecutive integers is \( \frac{1}{30} \). Find the two integers.
-6, -5 and 5, 6

Ex 2 (#16) A community water tank can be filled in 18 hours by the town office well alone and in 22 hours by the high school well alone. How long will it take to fill the tank if both wells are working? \( \frac{9}{10} \) hrs

Ex 3 (# 20) Kent can cut and split a cord of wood twice as fast as Brent can. When they work together, it takes them 4 hours. How long would it take each of them to do the job alone? B: 12 hrs

Ex 4 (# 36) The A train goes 12 mph slower than the E train. The A train travels 230 miles in the same amount of time that the E train travels 290 miles. Find the speed of each train. A: 46mph; E: 58mph

Ex 5 (# 44) Fiona’s Boston Whaler cruised 45 miles upstream and 45 miles back in a total of 8 hours. The speed of the river is 3 mph. Find the speed of the boat in still water. 12mph