

Algebra II Rational Function Word Problems Review

Lesson 096 | Algebra II | Rational word problems

https://www.youtube.com/watch?v=ISUi5GAh__s

Original practice aligned to the saved video title.

Name: _____ Date: _____ Show your reasoning.

01

One pump fills a tank in 4 hours and another in 10 hours. How long together, at constant rates?

02

One pump fills a tank in 10 hours and another in 3 hours. How long together, at constant rates?

03

One pump fills a tank in 14 hours and another in 2 hours. How long together, at constant rates?

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04

One pump fills a tank in 12 hours and another in 9 hours. How long together, at constant rates?

05

One pump fills a tank in 2 hours and another in 11 hours. How long together, at constant rates?

06

One pump fills a tank in 6 hours and another in 3 hours. How long together, at constant rates?

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01

One pump fills a tank in 4 hours and another in 10 hours. How long together, at constant rates?

Add rates: $\frac{1}{4} + \frac{1}{10} = \frac{7}{20}$ tank/hour. Time is the reciprocal: $\frac{20}{7}$ hours.

02

One pump fills a tank in 10 hours and another in 3 hours. How long together, at constant rates?

Add rates: $\frac{1}{10} + \frac{1}{3} = \frac{13}{30}$ tank/hour. Time is the reciprocal: $\frac{30}{13}$ hours.

03

One pump fills a tank in 14 hours and another in 2 hours. How long together, at constant rates?

Add rates: $\frac{1}{14} + \frac{1}{2} = \frac{4}{7}$ tank/hour. Time is the reciprocal: $\frac{7}{4}$ hours.

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04

One pump fills a tank in 12 hours and another in 9 hours. How long together, at constant rates?

Add rates: $1/12 + 1/9 = 7/36$ tank/hour. Time is the reciprocal: $36/7$ hours.

05

One pump fills a tank in 2 hours and another in 11 hours. How long together, at constant rates?

Add rates: $1/2 + 1/11 = 13/22$ tank/hour. Time is the reciprocal: $22/13$ hours.

06

One pump fills a tank in 6 hours and another in 3 hours. How long together, at constant rates?

Add rates: $1/6 + 1/3 = 1/2$ tank/hour. Time is the reciprocal: 2 hours.