

MATH 34A: ENTRANCE QUIZ (REVIEW ON ALGEBRA)

1. Solve for x .

$$\frac{2}{2x - k} = \frac{3}{4x + 3}.$$

2. Solve for x and y .

$$\begin{aligned} 3x - y &= 12 \\ x + y &= 7. \end{aligned}$$

3. What is $\frac{3}{4}$ of 80% of $\frac{2}{3}$? Give the answer as a fraction.

4. 3 robots can dig a ditch 30 feet long in 2 days. How long would it take 4 robots to dig a ditch that is 100 feet long?

5. A concert sold 20000 tickets. 5000 if the tickets sold for \$40 each. The rest of the tickets sold for \$20 each. It cost \$100000 to put on the concert. The rest of the money was shared equally between 5 charities. How much did each charity receive?

6. Car A left Santa Diego at noon traveling along a route of 120 miles to Los Angelos. Car B left Los Angelos 1 hour after Car A left San Diego and traveled at the same speed as Car A. They meet at 2pm. How fast do the cars travel?