

S.M.ART School MAB5 HW due 04-23-2024

Extract a factor out of radical ($\sqrt{\quad}$)

Example $\sqrt{0.32} = \sqrt{(32/100)} = \sqrt{32} / \sqrt{100} = 4\sqrt{2} / 10 = 2\sqrt{2} / 5$

R1 $\sqrt{2.89}$

R2 $\sqrt{2,890}$

R3 $\sqrt{0.0064}$

R4 $\sqrt{324}$

C1 Compute.

Symbol ":" stands for "Division". Coma "," means "Decimal Point"

$$\frac{2\frac{1}{6} + 1,5}{2\frac{1}{6} - 1,5} + \frac{\frac{2}{13} \cdot (5,84 + 7\frac{4}{25})}{\frac{8}{9} : 4\frac{4}{9} - 0,05} - \frac{(\frac{19,2}{0,12} - 3,4) : 0,9}{1,2 : \frac{1}{29} \cdot \frac{1}{2}} - 29,9$$

Solve Linear Equations

$$E1 \quad 5x/4 - (3x - 3)/18 = 9/10$$

$$E2 \quad 5/(2x) - 4/(6x) - 3/(8x) = 5/12$$

$$E3 \quad 2/(3x) - 3/(7x) + 1/(6x) = 2/7$$

$$E4 \quad 7/(3x - 2) + 9/(6x - 4) = 23/26$$

W1 How much time (in minutes) is saved, if you cover a mile going 50 mph instead of 40 mph?

- W2 How much time (in minutes) is saved, if you cover a mile going 60 mph instead of 50 mph?
- W3 On a road with a posted legal speed limit of 45mph a motorist covered a mile per 1 minute and 20 seconds. Is he in violation, and if so – by how much?
- W4 Towns A and B are 960 miles apart. Train leaves A in the direction of B at 50 miles per hour. How long will it take before the train meets another train, going from B to A at a speed 70 miles per hour?
- W5 A man walked into the country at the rate of 3 mph and hurried back over the same road at 4 mph. The round trip took 5 hours and 15 min. How far into the country did he walk?

- W6 If Robert can seal 40 envelopes in one minute, and Paul can do the same job in 80 seconds, how many minutes (to the nearest min.) will it take the two of them, working together, to seal 350 envelopes?
- G1 The sum of the digits of two-digit number is 10. If 18 is added to the number, the result is equal to the number obtained by reversing the digits of original number. Find the original number.