

Zadatak 7. Izračunaj x iz jednadžbe: $\frac{x + 0.3\dot{2}}{1\frac{27}{32} - 0.625} = 1.0\dot{6}$.

Rješenje. $\frac{x + 0.3\dot{2}}{1\frac{27}{32} - 0.625} = 1.0\dot{6}$,

$$0.3\dot{2} = \frac{3}{10} + \frac{2}{100} \left(1 + \frac{1}{10} + \dots\right) = \frac{3}{10} + \frac{1}{50} \cdot \frac{10}{9}$$

$$= \frac{3}{10} + \frac{1}{45} = \frac{27 + 2}{90} = \frac{29}{90}$$

$$1\frac{27}{32} = \frac{59}{32}$$

$$0.625 = \frac{5}{8}$$

$$1.0\dot{6} = 1 + \frac{6}{100} \left(1 + \frac{1}{10} + \dots\right) = 1 + \frac{3}{50} \cdot \frac{10}{9} = 1 + \frac{1}{15} = \frac{16}{15}$$

$$\frac{x + \frac{29}{90}}{\frac{59}{32} - \frac{5}{8}} = \frac{16}{15}$$

$$\frac{x + \frac{29}{90}}{\frac{39}{32}} = \frac{16}{15}$$

$$x + \frac{29}{90} = \frac{16}{15} \cdot \frac{39}{32}$$

$$x + \frac{29}{90} = \frac{13}{10}$$

$$x = \frac{13}{10} - \frac{29}{90} = \frac{117 - 29}{90} = \frac{88}{90} = \frac{44}{45}$$