(1) а) $15\sqrt{0{,}36} + \frac{1}{28}\cdot\sqrt{196} =$

$= 15\sqrt{\frac{9}{25}} + \frac{1}{28}\cdot 14^{1} =$

$= 15^{3}\cdot\frac{3}{5} + \frac{1}{2} = 9^{(\cdot 2} + \frac{1}{2} = \frac{18+1}{2} = \frac{19}{2}$

б) $11{,}5 - 6\sqrt{2\frac{7}{9}} = 11{,}5 - 6\sqrt{\frac{25}{9}} =$

$= 11{,}5 - 6^{2}\cdot\frac{5}{3} = 11{,}5 - 2\cdot 5 = 11{,}5 - 10 = 1{,}5$

в) $\left(\frac{0{,}8}{\sqrt{32}}\right)^2 = \left(\frac{\frac{4}{5}}{4\sqrt{2}}\right)^2 = \left(\frac{1}{5\sqrt{2}}\right)^{(\sqrt{2}}{}^2 = \left(\frac{\sqrt{2}}{10}\right)^2 = \frac{2}{100} = \frac{1}{50}$

г) $(\sqrt{11}+\sqrt{5})(\sqrt{5}-\sqrt{11}) = (\sqrt{5}+\sqrt{11})(\sqrt{5}-\sqrt{11}) =$

$= 5 - 11 = -6$

(2.) а) $\sqrt{0{,}81\cdot 121} = 11\sqrt{0{,}81} = 11\sqrt{\frac{81}{100}} = 11\cdot\frac{9}{10} =$

$= \frac{99}{100} = 9\frac{9}{10}$

б) $\sqrt{\frac{25}{169}} = \frac{5}{13}$

в) $\sqrt{63}\cdot\sqrt{28} = 3\sqrt{7}\cdot 2\sqrt{7} = 6\cdot 7 = 42$

г) $\frac{\sqrt{42}}{\sqrt{2}} = \sqrt{36} = 6$

д) $\sqrt{1{,}3^2 - 1{,}2^2} = \sqrt{\left(\frac{13}{10}\right)^2 - \left(\frac{6}{5}\right)^2} = \sqrt{\frac{169}{100} - \frac{36}{25}} =$

$= \sqrt{\frac{1}{4}} = \frac{1}{2}$

е) $(\sqrt{6}-\sqrt{11})^2 + 2\sqrt{66} = 6 - 2\sqrt{66} + 11 + 2\sqrt{66} =$

$= 6 + 11 = 17$

(3.) a) $x^2 - \frac{1}{4} = 0$

$x^2 = \frac{1}{4}$

$x = \sqrt{\frac{1}{4}} = \pm\frac{1}{2}$

b) $\sqrt{600} \cdot x = \sqrt{6}$

$x = \frac{\sqrt{6}}{\sqrt{600}} = \frac{\sqrt{6}}{10\sqrt{6}} = \frac{1}{10}$

c) $x^2 = 0,7$

$x = \sqrt{0,7} = \pm\frac{\sqrt{70}}{10}$

d) $\sqrt{x} = 0,9$

$x = 0,9^2 = 0,81$

g) $\sqrt{10 - x} = 4$

$10 - x = 16$

$-x = 16 - 10$

$-x = 6$

$x = -6$

e) $x^2 + 6 = 4$

$x^2 = -2$

$x \notin \mathbb{R}$

ж) $\sqrt{x^2} = 102$

$|x| = 102$

$x = \pm 102$

(4.) a) $-5\sqrt{2} > -4\sqrt{3}$

d) $\frac{2}{3} < \sqrt{94}$