

Even Answers

PS40 2] 18, 240 words 4] $N_b = 120$ pairs of boots; $N_s = 40$ pairs of shoes 6] $\frac{mx}{cx-x}$
8] $\frac{mp}{6-px-kp}$ 10] $x^3 - 9x^2 + 27x - 27$ 12] $\frac{7}{2}, -\frac{7}{2}$ 14] 1 16] 2 18] $\frac{xy^2 - 4p}{a^2py - 1}$
20] $30\sqrt{2}$ 22] A = 30; B = 150; C = 15 24] (a) $x = -1$; (b) $y = x - 2$ 26] 510 28] 5
30] $-\frac{1}{24}$

PS42 2] 6000 students 4] 156 grams 6] 3×10^{15} 8] 3×10^{50} 10] $\frac{m^2}{p+mx}$
12] $4x^2 - 8x + 16 - \frac{33}{x+2}$ 14] 0, 4, 5 16] $\frac{x+5}{x+4}$ 18] $\frac{m-4x}{6x-1}$ 20] $36 - 24\sqrt{3}$
22] A = 45; B = 51 24] $y = -x - 5$ 26] $\frac{5}{52}$ 28] $-1 + 3x^{-4}$ 30] $-\frac{27}{2}$

PS43 2] 4000 boys 4] 2310 grams
6] $\sin A = \frac{\textit{opposite}}{\textit{hypotenuse}}$; $\cos A = \frac{\textit{adjacent}}{\textit{hypotenuse}}$; $\tan A = \frac{\textit{opposite}}{\textit{adjacent}}$ 8] (a) 0.66; (b) 0.76; (c) 1.33
10] $\frac{az}{p+xz}$ 12] $\frac{cxz}{cp+kz}$ 14] 0, -5, -4 16] $x^3 - 9x^2 + 27x - 27$ 18] $\frac{1}{8}$ 20] $-\frac{25\sqrt{21}}{21}$
22] A = B = $2\sqrt{5}$ 24] $\frac{71}{19}$ 26] 6×10^{-7} 28] $8 - 16x^{-4}y^2$ 30] $-\frac{1}{8}$

PS44 2] -11, -9, -7, -5 4] 55 grams 6] B = 62; $H \approx 10.76$; $y \approx 5.05$
8] $A \approx 55.15$; $B \approx 34.85$; $x \approx 5.74$ 10] $\frac{dk}{p+cd}$ 12] $\frac{am}{x-dm}$ 14] 0, 4, 6
16] $x^3 - 4x^2 + 16x - 64$ 18] $-\frac{1}{16}$ 20] $\frac{5x^3 + 1}{pm^2 + 5x}$ 22] $36 - 18\sqrt{2}$ 24] 7
26] $\left(\frac{12}{5}, -\frac{1}{5}\right)$ 28] 4×10^{-32} 30] 8