

## 9 Repetition

9.1 Svarene er:

$$8, \quad -5, \quad \frac{11}{15}, \quad \frac{5}{3}.$$

9.2 Svarene er:

$$-1, \quad 45, \quad \frac{17}{30}, \quad 5.$$

9.3 Svarene er:

$$\frac{3 - \sqrt{2}}{2}, \quad 3, \quad 3.$$

9.4 Svarene er:

$$x^2 + 25 + 10x, \quad 4x^2 + 1 - 4x, \quad 4y^2 - 1, \quad 2y^2 - x^2.$$

9.5 Svarene er:

$$\frac{x - y}{x}, \quad \frac{x + y}{x}, \quad y.$$

9.6 Svarene er:

$$x = -2, \quad x = \frac{63}{10}, \quad x = -1, x = 3.$$

9.7 Svarene er:

$$x = \pm\sqrt{2}, \quad x = 1, x = -\frac{1}{2}.$$

9.8 Svarene kan være:

$$x = \frac{1}{2}, \quad x = \frac{4\pi}{3}, \quad x = 4.$$

9.9 Svarene er:

$$\begin{array}{ll} a = 0, & a \in \mathbb{R} \setminus \{-1\}, \\ a \in \mathbb{R} \setminus \{-1\}, & \text{Aldrig sandt.} \end{array}$$

9.10 Svarene er:

$$f'(x) = 6x^2 - 2x, \quad g'(x) = -4x^{-3} + 1, \quad h'(x) = -\frac{2}{x^2} + 1.$$

9.11 Svarene er:

$$\frac{2}{3}x^3 + x + k, \quad -\frac{1}{6}, \quad 12.$$

9.12 Svarene er:

$$\begin{aligned} f'(x) &= 6x^2 + 2x^{-3} - 4x^{-2}, \\ g'(x) &= 3e^3 - \frac{1}{2\sqrt{x-1}}, \\ h'(x) &= (x+1)2e^x - (2x-1)\cos(x^2-x). \end{aligned}$$

9.13 Svarene er:

$$-2e^{-x} + k, \quad 2e - 2, \quad 6 - 2\sqrt{5}.$$