

2011

- Tu:** 1. $12x - 5y - 1$ 2. $-480a^7d^5$ 3. $3x^2 + 4$ 4. $\frac{4m^4+12m^3n+9m^2n^2}{4n^2}$
- Fa:** 1. $(x + 6)^2$ 2. $(x - 4)(x - 9)$ 3. $3(m - 2n)^2$ 4. $(3w + z)(2u - v)$
- W:** 1. $60a^4b^5$ 2. $\frac{9c^2}{ab^3}$ 3. $22\sqrt{2x}$
- G:** 1. -1 2. 13 3. 11 4. $-26 < x$
- T:** 1. 15; 18; 32; 40 2. 16 Reihen; 198 Besucher
- Fl:** 1. 8 2. 20 cm^2 3. 6 cm
- P:** 1. 16.58 cm 2. 7.5 cm 3. 18.93 cm
4. a) $7'224 \text{ cm}^2$ b) 490 cm

2010

- Tu:** 1. $-16a + 16b$ 2. $49u^2 - 42uv^3 + 9v^2$
3. $2x^2 + x - 51y^2 + 20xy$ 4. $\frac{882}{11}$
- W:** 1. $\frac{3}{4c}$ 2. $\frac{6ab}{7}$ 3. $x^6y^4z^{10}$ 4. $14\sqrt{5a}$
- Fa:** 1. $14xyz^2(3xy - 2x^4 + 1)$ 2. $(7mn - 1)^2$
3. $5(1 - 3x)(1 + 3x)$ 4. $(3 - a)(a - 2b + 1)$
- G:** 1. 3 2. $-\frac{155}{8}$ 3. $\frac{16}{9} < x$ 4. 202; 197; 101
5. 1.5 Fr.; 30 Fr. 6. a) 35; 44 m/s; b) 805; 1012 m
- Fl:** 1. $3'158.44 \text{ m}^2$ 2. 30
3. a) $\overline{BC} = 15 \text{ cm}$; $\overline{BF} = 12 \text{ cm}$ b) 204
- P:** 1. 27.12 m 2. 5.196 cm 3. 35

2009

Tu: 1. 7 m

2. $9u^2v^2 - 12uv^3 + 4v^2$

3. $-x^2 - x - 2y^2 - 4$

4. $-\frac{9b}{2a^2}$

W: 1. $\frac{5x^2y^2}{8}$

2. $27x^6y^{15}z^3$

3. -14

4. $\frac{2\sqrt{6}+15\sqrt{2}}{12}$

5. $22\sqrt{15+9}$

Fa: 1. $5mn(3m^2 - 7m - 1)$

2. $(2p - 5)(6p - 5)$

3. $7(u - 3v)^2$

4. $(r - 4)(r + 6)$

5. $(x - 1)(x + 1)^2$

G: 1. 38

2. $\frac{13}{48}$

3. -7

4. $x \leq 4$

5. 12

6. 52; 24

7. 9.50 h

Fl: 1. 50 m

2. 4.424

3. 28.75

P: 1. 1125

2. $14\sqrt{2} = 19.799$

3. $\sqrt{40} = 6.325$

4. $F = 37.856; u = 32.585$

2008

TW: 1. $36n^2 - 12n + 1$

2. $u - 1$

3. $x^2y^2z^2$

4. $\frac{a^8 - 36a^4 + 324}{36a^2}$

5. $\frac{3b(2x+1)}{5a^2c^2}$

6. $\frac{2mn^2p}{5}$

7. $\frac{16x^4y^3}{375z^3}$

8. $-64x^{20}$

F: 1. $(x + 2y)(x + 3y)$

2. $(1 + u^2)(1 + u)(1 - u)$

3. $(2a - 3b)(3c^2 - 1)$

G: 1. $x = \frac{1}{7}, \mathbb{L} = \{\}$

2. $\frac{5}{2}$

3. $\frac{3}{4}$

T: 1. 200; 600

2. 8; 32

3. 45A; 30M; 60V

FP: 1. 10

2. 10.825

3. 4

4. $2\sqrt{2} = 2.828$

5. $F = 2100; u = 240$

6. $2\sqrt{3} + 2\sqrt{2} + 2 = 8.29$

2007

U: 1. $-3x - 2y$

2. $-27a^6b^9c^3 - 64a^4b^2c^8$

3. $\frac{1}{8}$

4. $\frac{8b}{75}$

5. $4u^2 - 9v^2 - 24uv$

G: 1. 60

2. $\frac{3}{2}$

3. $-\frac{1}{7}$

4. $x \geq 2$

W: 1. $\frac{b^9}{c^{20}}$

2. $\sqrt{13a}$

3. $144a^6b^4$

4. 54

5. $\frac{ab^2}{6} - \frac{ab}{4}$

T: 1. 0.6; 1.2; 0.3

2. 12; 21; 23

3. 97.83; 82.17

F: 1. 44

2. 166

3. 24

P: 1. 30

2. 10

3. 122.98

4. 7

2006

T: 1. $22a - 22b - 24c$

2. $-5a^2 + 56a + 9$

3. $-70f^2 + 84fg - 15g^2$

4. $-72x^9y^3$

5. $\frac{9}{20}x - \frac{41}{30}$

G: 1. 4

2. 9

3. $x \geq 2$

4. $\frac{1}{4}$

W 1. $\frac{7}{\sqrt{5}} = \frac{7\sqrt{5}}{5}$

2. $z + 1$

3. $\frac{2}{y}$

4. a^3

5. $6xy^2$

6. $\frac{1}{8}ab$

T: 1. 125; 175

2. 6; 12

3. 17.20 h; 60 km von A

F: 1. 15

2. 285'000

3. 85; 560

P: 1. 3150; 270

2. 93.531

3. 42.20

2005

T: 1. $7m$

2. $-4a^{12}b^{14}$

3. $9x^3 - 14x^2$

4. $74a^2 + 40ab - 65b^2$

5. $-\frac{9b}{2a^2}$

G: 1. 2

2. 11

3. 21

4. $\frac{4}{7}$

U: 1. $\{0, 1, \dots, 6\}$

2. $-6 \geq x$

W: 1. $\frac{25acx}{b^2y^2}$

2. $\frac{9a^8}{4y^2}$

3. $3\sqrt{2}$

4. $a^2 + 4a\sqrt{b} + 4b$

5. $\sqrt{6}$

T: 1. 21; 36; 42

2. 800 km/h

F: 1. 30; 48; 121.5; 85.5

2. 18; 2

P: 1. 4.243

2. 12.65

3. 21.995; 1967.51