

Exercise 1

Calculate (without calculator!) :

▶1. $1 \times 6 = 6$

▶2. $9 \times 10 = 90$

▶3. $8 + 6 = 14$

▶4. $19 - 9 = 10$

▶5. $7 - 1 = 6$

▶6. $4 + 2 = 6$

▶7. $2 + 4 = 6$

▶8. $9 \times 3 = 27$

▶9. $1 + 8 = 9$

▶10. $5 + 7 = 12$

▶11. $2 \times 8 = 16$

▶12. $3 \div 3 = 1$

▶13. $17 - 9 = 8$

▶14. $16 - 9 = 7$

▶15. $7 \times 1 = 7$

▶16. $6 - 1 = 5$

▶17. $12 \div 3 = 4$

▶18. $2 \div 2 = 1$

▶19. $54 \div 9 = 6$

▶20. $30 \div 5 = 6$

Exercise 2

Complete the following expressions :

▶1. $\frac{50\,630}{10\,000} = 5,063$

▶2. $\frac{4\,467}{10} = 446,7$

▶3. $\frac{7\,109}{10} = 710,9$

▶4. $\frac{4\,418}{1\,000} = 4,418$

▶5. $\frac{7\,330}{10} = 733$

▶6. $\frac{51\,000}{10\,000} = 5,1$

▶7. $\frac{3\,349}{100} = 33,49$

▶8. $\frac{2\,820}{100} = 28,2$

▶9. $\frac{18\,200}{100} = 182$

▶10. $\frac{73\,450}{100} = 734,5$

▶11. $\frac{8\,735}{100} = 87,35$

▶12. $\frac{46\,710}{1\,000} = 46,71$

▶13. $\frac{21\,140}{1\,000} = 21,14$

▶14. $\frac{49\,720}{10\,000} = 4,972$

▶15. $\frac{4\,253}{1\,000} = 4,253$

▶16. $\frac{9\,849}{1\,000} = 9,849$

▶17. $\frac{6\,538}{100} = 65,38$

▶18. $\frac{82\,770}{1\,000} = 82,77$

Exercise 3

Calculate the following expression by using a decimal number :

▶1. $4 \times 10 + 3 \times \frac{1}{10} + 2 \times \frac{1}{100} = 40,32$

▶2. $6 \times 10 + 9 \times \frac{1}{1\,000} + 1 \times 1 = 61,009$

▶3. $9 \times \frac{1}{100} + 7 \times 1\,000 + 2 \times 100 = 7\,200,09$

▶4. $8 \times \frac{1}{1\,000} + 2 \times 1 + 4 \times 1\,000 = 4\,002,008$

▶5. $3 \times 1 + 1 \times 10 + 9 \times 1\,000 = 9\,013$

▶6. $5 \times 1\,000 + 9 \times \frac{1}{100} + 3 \times \frac{1}{10} = 5\,000,39$

▶7. $1 \times 1 + 9 \times \frac{1}{1\,000} + 7 \times 1\,000 = 7\,001,009$

▶8. $1 \times 10 + 2 \times \frac{1}{10} + 6 \times 100 = 610,2$

▶9. $9 \times \frac{1}{1\,000} + 6 \times \frac{1}{100} + 8 \times \frac{1}{10} = 0,869$

▶10. $7 \times 1 + 6 \times 1\,000 + 7 \times \frac{1}{10} = 6\,007,7$

▶11. $4 \times \frac{1}{100} + 6 \times 1 + 7 \times 10 = 76,04$

▶12. $2 \times \frac{1}{100} + 3 \times \frac{1}{1\,000} + 4 \times 1\,000 = 4\,000,023$

▶13. $7 \times \frac{1}{1\,000} + 9 \times \frac{1}{100} + 2 \times 1\,000 = 2\,000,097$

▶14. $5 \times 10 + 3 \times \frac{1}{10} + 5 \times 1 = 55,3$

▶15. $1 \times 100 + 2 \times 10 + 7 \times \frac{1}{1\,000} = 120,007$

▶16. $6 \times \frac{1}{10} + 5 \times \frac{1}{1\,000} + 8 \times 10 = 80,605$

▶17. $9 \times 1 + 4 \times \frac{1}{1\,000} + 4 \times 100 = 409,004$

▶18. $2 \times 100 + 4 \times 1 + 5 \times \frac{1}{1\,000} = 204,005$

Exercise 4

- ▶1. Order these decimals from greatest to least.

6,2 ; 1,721 ; 1,1 ; 1,43
 6,2 > 1,721 > 1,43 > 1,1

- ▶2. Order these decimals from greatest to least.

9,8 ; 6,98 ; 6,398 ; 6,2
 9,8 > 6,98 > 6,398 > 6,2

- ▶3. Order these decimals from greatest to least.

4,316 ; 4,2 ; 7 ; 4,16
 7 > 4,316 > 4,2 > 4,16

- ▶4. Order these decimals from greatest to least.

2,93 ; 2,7 ; 2,851 ; 1,6
 2,93 > 2,851 > 2,7 > 1,6

- ▶5. Order these decimals from least to greatest.

5,52 ; 7,1 ; 5,7 ; 5,128
 5,128 < 5,52 < 5,7 < 7,1

- ▶6. Order these decimals from least to greatest.

4,9 ; 4,53 ; 4,614 ; 8,3
 4,53 < 4,614 < 4,9 < 8,3

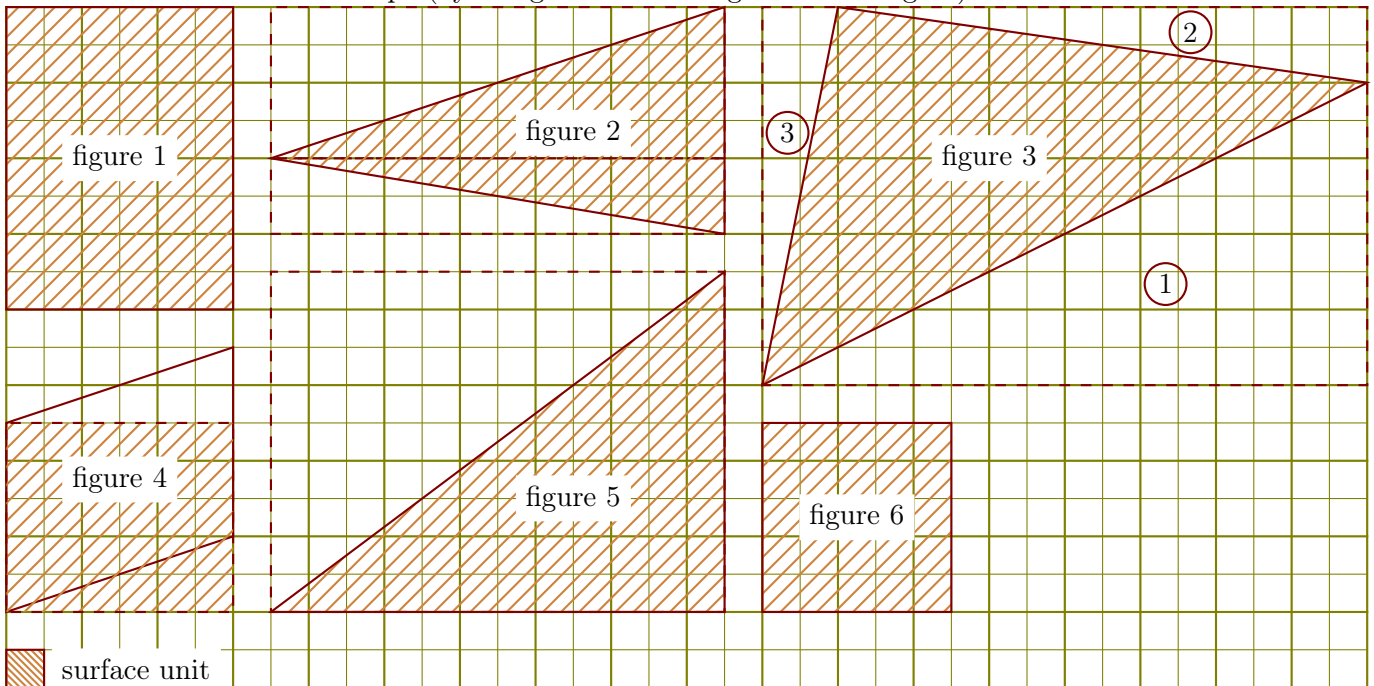
Exercise 5

Choose the correct answers :

729 can be divided :	<input type="checkbox"/> by 2	<input checked="" type="checkbox"/> by 3	<input type="checkbox"/> by 5	<input checked="" type="checkbox"/> by 9	<input type="checkbox"/> by 10
90 can be divided :	<input checked="" type="checkbox"/> by 2	<input checked="" type="checkbox"/> by 3	<input checked="" type="checkbox"/> by 5	<input checked="" type="checkbox"/> by 9	<input checked="" type="checkbox"/> by 10
36 can be divided :	<input checked="" type="checkbox"/> by 2	<input checked="" type="checkbox"/> by 3	<input type="checkbox"/> by 5	<input checked="" type="checkbox"/> by 9	<input type="checkbox"/> by 10
630 can be divided :	<input checked="" type="checkbox"/> by 2	<input checked="" type="checkbox"/> by 3	<input checked="" type="checkbox"/> by 5	<input checked="" type="checkbox"/> by 9	<input checked="" type="checkbox"/> by 10
177 can be divided :	<input type="checkbox"/> by 2	<input checked="" type="checkbox"/> by 3	<input type="checkbox"/> by 5	<input type="checkbox"/> by 9	<input type="checkbox"/> by 10
420 can be divided :	<input checked="" type="checkbox"/> by 2	<input checked="" type="checkbox"/> by 3	<input checked="" type="checkbox"/> by 5	<input type="checkbox"/> by 9	<input checked="" type="checkbox"/> by 10
840 can be divided :	<input checked="" type="checkbox"/> by 2	<input checked="" type="checkbox"/> by 3	<input checked="" type="checkbox"/> by 5	<input type="checkbox"/> by 9	<input checked="" type="checkbox"/> by 10
639 can be divided :	<input type="checkbox"/> by 2	<input checked="" type="checkbox"/> by 3	<input type="checkbox"/> by 5	<input checked="" type="checkbox"/> by 9	<input type="checkbox"/> by 10
150 can be divided :	<input checked="" type="checkbox"/> by 2	<input checked="" type="checkbox"/> by 3	<input checked="" type="checkbox"/> by 5	<input type="checkbox"/> by 9	<input checked="" type="checkbox"/> by 10
165 can be divided :	<input type="checkbox"/> by 2	<input checked="" type="checkbox"/> by 3	<input checked="" type="checkbox"/> by 5	<input type="checkbox"/> by 9	<input type="checkbox"/> by 10
891 can be divided :	<input type="checkbox"/> by 2	<input checked="" type="checkbox"/> by 3	<input type="checkbox"/> by 5	<input checked="" type="checkbox"/> by 9	<input type="checkbox"/> by 10
530 can be divided :	<input checked="" type="checkbox"/> by 2	<input type="checkbox"/> by 3	<input checked="" type="checkbox"/> by 5	<input type="checkbox"/> by 9	<input checked="" type="checkbox"/> by 10
126 can be divided :	<input checked="" type="checkbox"/> by 2	<input checked="" type="checkbox"/> by 3	<input type="checkbox"/> by 5	<input checked="" type="checkbox"/> by 9	<input type="checkbox"/> by 10
176 can be divided :	<input checked="" type="checkbox"/> by 2	<input type="checkbox"/> by 3	<input type="checkbox"/> by 5	<input type="checkbox"/> by 9	<input type="checkbox"/> by 10
270 can be divided :	<input checked="" type="checkbox"/> by 2	<input checked="" type="checkbox"/> by 3	<input checked="" type="checkbox"/> by 5	<input checked="" type="checkbox"/> by 9	<input checked="" type="checkbox"/> by 10

Exercise 6

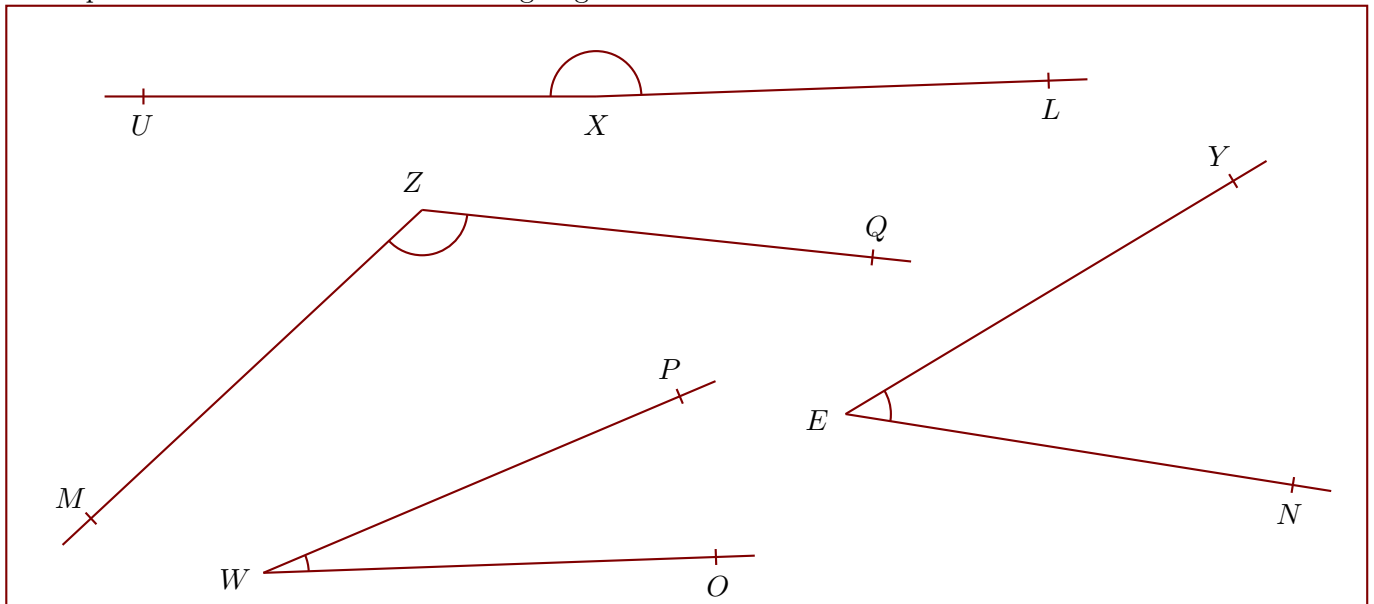
Calculate the area of each shape (by using the area unit given in the figure) :



- ▶1. Surface of figure 1 : $6 \times 8 = 48$ surface units
- ▶2. Surface of figure 2 : it is half of the surface of the dotted rectangle.
 $(12 \times 6) \div 2 = 36$ surface units
- ▶3. Surface of figure 3 : we calculate the surface of the dotted rectangle and we subtract the surface of the right-angled triangles (1), (2) and (3).
 $(16 \times 10) - (16 \times 8) \div 2 - (14 \times 2) \div 2 - (2 \times 10) \div 2 = 72$ surface units
- ▶4. Surface of figure 4 : it is the surface of the dotted rectangle.
 $6 \times 5 = 30$ surface units
- ▶5. Surface of figure 5 : it is half of the surface of the dotted rectangle.
 $(12 \times 9) \div 2 = 54$ surface units
- ▶6. Surface of figure 6 : $5 \times 5 = 25$ surface units

Exercise 7

Use a protractor to measure the following angles :



$\widehat{LXU} = 178^\circ$
obtuse angle

$\widehat{MZQ} = 131^\circ$
obtuse angle

$\widehat{NEY} = 40^\circ$
acute angle

$\widehat{OWP} = 21^\circ$
acute angle

Exercise 8

Compute the following expressions by given the detail.

$$A = 10 + 6 - 12$$

$$A = 16 - 12$$

$$A = 4$$

$$B = 3 + 6 - 3$$

$$B = 9 - 3$$

$$B = 6$$

$$C = 11 + 9 - 2$$

$$C = 20 - 2$$

$$C = 18$$

$$D = 2 + 7 + 2 \div (4 - 2) \times 13$$

$$D = 2 + 7 + 2 \div 2 \times 13$$

$$D = 2 + 7 + 1 \times 13$$

$$D = 2 + 7 + 13$$

$$D = 9 + 13$$

$$D = 22$$

$$E = 10 \times 6 \div (7 - 3) + 11 + 9$$

$$E = 10 \times 6 \div 4 + 11 + 9$$

$$E = 60 \div 4 + 11 + 9$$

$$E = 15 + 11 + 9$$

$$E = 26 + 9$$

$$E = 35$$

$$F = 12 \times (11 + 7) \div 4 - 4 + 5$$

$$F = 12 \times 18 \div 4 - 4 + 5$$

$$F = 216 \div 4 - 4 + 5$$

$$F = 54 - 4 + 5$$

$$F = 50 + 5$$

$$F = 55$$

$$G = 10 \div (7 - 2) + 6 \times 3 + 4$$

$$G = 10 \div 5 + 6 \times 3 + 4$$

$$G = 2 + 6 \times 3 + 4$$

$$G = 2 + 18 + 4$$

$$G = 20 + 4$$

$$G = 24$$

$$H = 2,7 + 1,5 \times (8,6 - 2,7) + 6,3$$

$$H = 2,7 + 1,5 \times 5,9 + 6,3$$

$$H = 2,7 + 8,85 + 6,3$$

$$H = 11,55 + 6,3$$

$$H = 17,85$$

$$I = 9,4 - 7 + 3,8 + 5,7 \times 7,2$$

$$I = 9,4 - 7 + 3,8 + 41,04$$

$$I = 2,4 + 3,8 + 41,04$$

$$I = 6,2 + 41,04$$

$$I = 47,24$$

Exercise 9

Complete the following expression :

$$\blacktriangleright 1. \frac{8}{24} = \frac{2_{(\times 4)}}{6_{(\times 4)}}$$

$$\blacktriangleright 2. \frac{50}{100} = \frac{5_{(\times 10)}}{10_{(\times 10)}}$$

$$\blacktriangleright 3. \frac{4_{(\times 6)}}{2_{(\times 6)}} = \frac{24}{12}$$

$$\blacktriangleright 4. \frac{81}{36} = \frac{9_{(\times 9)}}{4_{(\times 9)}}$$

$$\blacktriangleright 5. \frac{9_{(\times 8)}}{6_{(\times 8)}} = \frac{72}{48}$$

$$\blacktriangleright 6. \frac{40}{80} = \frac{5_{(\times 8)}}{10_{(\times 8)}}$$

$$\blacktriangleright 7. \frac{2_{(\times 7)}}{9_{(\times 7)}} = \frac{14}{63}$$

$$\blacktriangleright 8. \frac{18}{24} = \frac{3_{(\times 6)}}{4_{(\times 6)}}$$

Exercise 10

Find the *common denominator* and calculate the following expressions. Give the result in its simplest form :

$$A = \frac{10}{9} - \frac{5}{81}$$

$$A = \frac{10_{\times 9}}{9_{\times 9}} - \frac{5}{81}$$

$$A = \frac{85}{81}$$

$$B = \frac{5}{3} - \frac{7}{6}$$

$$B = \frac{5_{\times 2}}{3_{\times 2}} - \frac{7}{6}$$

$$B = \frac{1_{\times 3}}{2_{\times 3}}$$

$$B = \frac{1}{2}$$

$$C = \frac{9}{10} - \frac{3}{80}$$

$$C = \frac{9 \times 8}{10 \times 8} - \frac{3}{80}$$

$$C = \frac{69}{80}$$

$$D = \frac{9}{35} + \frac{7}{5}$$

$$D = \frac{9}{35} + \frac{7 \times 7}{5 \times 7}$$

$$D = \frac{58}{35}$$

$$E = \frac{4}{3} + \frac{2}{27}$$

$$E = \frac{4 \times 9}{3 \times 9} + \frac{2}{27}$$

$$E = \frac{38}{27}$$

$$F = \frac{7}{9} - \frac{5}{81}$$

$$F = \frac{7 \times 9}{9 \times 9} - \frac{5}{81}$$

$$F = \frac{58}{81}$$

$$G = \frac{7}{27} + \frac{2}{3}$$

$$G = \frac{7}{27} + \frac{2 \times 9}{3 \times 9}$$

$$G = \frac{25}{27}$$

$$H = \frac{7}{16} - \frac{1}{8}$$

$$H = \frac{7}{16} - \frac{1 \times 2}{8 \times 2}$$

$$H = \frac{5}{16}$$

$$I = \frac{7}{5} - \frac{3}{40}$$

$$I = \frac{7 \times 8}{5 \times 8} - \frac{3}{40}$$

$$I = \frac{53}{40}$$

$$J = \frac{9}{80} - \frac{1}{10}$$

$$J = \frac{9}{80} - \frac{1 \times 8}{10 \times 8}$$

$$J = \frac{1}{80}$$

$$K = \frac{9}{64} + \frac{5}{8}$$

$$K = \frac{9}{64} + \frac{5 \times 8}{8 \times 8}$$

$$K = \frac{49}{64}$$

$$L = \frac{7}{2} + \frac{3}{16}$$

$$L = \frac{7 \times 8}{2 \times 8} + \frac{3}{16}$$

$$L = \frac{59}{16}$$

$$M = \frac{6}{35} + \frac{9}{7}$$

$$M = \frac{6}{35} + \frac{9 \times 5}{7 \times 5}$$

$$M = \frac{51}{35}$$

$$N = \frac{7}{60} + \frac{7}{10}$$

$$N = \frac{7}{60} + \frac{7 \times 6}{10 \times 6}$$

$$N = \frac{49}{60}$$

$$O = \frac{7}{4} - \frac{9}{32}$$

$$O = \frac{7 \times 8}{4 \times 8} - \frac{9}{32}$$

$$O = \frac{47}{32}$$

$$P = \frac{7}{20} - \frac{1}{5}$$

$$P = \frac{7}{20} - \frac{1 \times 4}{5 \times 4}$$

$$P = \frac{3}{20}$$

Exercise 11

Calculate the following expression and give the result in its simplest form (*Hint* : Simplify the expression before starting the multiplication) :

$$A = \frac{60}{49} \times \frac{21}{50}$$

$$A = \frac{6 \times \cancel{10}}{7 \times \cancel{7}} \times \frac{3 \times \cancel{7}}{5 \times \cancel{10}}$$

$$A = \frac{18}{35}$$

$$B = \frac{3}{35} \times \frac{50}{9}$$

$$B = \frac{1 \times \cancel{5}}{7 \times \cancel{5}} \times \frac{10 \times \cancel{5}}{3 \times \cancel{3}}$$

$$B = \frac{10}{21}$$

$$C = \frac{64}{81} \times \frac{81}{80}$$

$$C = \frac{4 \times \cancel{16}}{1 \times \cancel{81}} \times \frac{1 \times \cancel{81}}{5 \times \cancel{16}}$$

$$C = \frac{4}{5}$$

$$D = \frac{10}{81} \times \frac{63}{20}$$

$$D = \frac{1 \times \cancel{10}}{9 \times \cancel{9}} \times \frac{7 \times \cancel{9}}{2 \times \cancel{10}}$$

$$D = \frac{7}{18}$$

$$E = \frac{21}{20} \times \frac{20}{63}$$

$$E = \frac{1 \times \cancel{21}}{1 \times \cancel{20}} \times \frac{1 \times \cancel{20}}{3 \times \cancel{21}}$$

$$E = \frac{1}{3}$$

$$F = \frac{40}{21} \times \frac{7}{16}$$

$$F = \frac{5 \times \cancel{8}}{3 \times \cancel{7}} \times \frac{1 \times \cancel{7}}{2 \times \cancel{8}}$$

$$F = \frac{5}{6}$$

$$G = \frac{9}{49} \times \frac{35}{27}$$

$$G = \frac{1 \times \cancel{9}}{7 \times \cancel{7}} \times \frac{5 \times \cancel{7}}{3 \times \cancel{9}}$$

$$G = \frac{5}{21}$$

$$H = \frac{20}{21} \times \frac{63}{20}$$

$$H = \frac{1 \times \cancel{20}}{1 \times \cancel{21}} \times \frac{3 \times \cancel{21}}{1 \times \cancel{20}}$$

$$H = 3$$

Exercise 12

Calculate the following expressions (without using the calculator) :

- | | |
|------------------------------|-----------------------------|
| ▶1. $1 + 4 = 5$ | ▶21. $1 \times (-10) = -10$ |
| ▶2. $-14 + (-7) = -21$ | ▶22. $4 + 4 = 8$ |
| ▶3. $10 + 6 = 16$ | ▶23. $-90 \div 10 = -9$ |
| ▶4. $-9 + (-1) = -10$ | ▶24. $-2 + (-7) = -9$ |
| ▶5. $-3 + 3 = 0$ | ▶25. $1 - 4 = -3$ |
| ▶6. $-1 - 9 = -10$ | ▶26. $2 \times 5 = 10$ |
| ▶7. $5 + 6 = 11$ | ▶27. $9 \times (-5) = -45$ |
| ▶8. $-8 + 10 = 2$ | ▶28. $-8 + 9 = 1$ |
| ▶9. $1 + 3 = 4$ | ▶29. $-6 + (-1) = -7$ |
| ▶10. $-6 + 9 = 3$ | ▶30. $-2 - 1 = -3$ |
| ▶11. $0 - (-8) = 8$ | ▶31. $60 \div (-6) = -10$ |
| ▶12. $-7 + (-5) = -12$ | ▶32. $-5 - (-1) = -4$ |
| ▶13. $0 - (-2) = 2$ | ▶33. $45 \div (-5) = -9$ |
| ▶14. $19 - 10 = 9$ | ▶34. $-8 \times (-5) = 40$ |
| ▶15. $5,8 - 7,4 = -1,6$ | ▶35. $-18 \div (-6) = 3$ |
| ▶16. $6,2 + (-3,1) = 3,1$ | ▶36. $-8 \times 8 = -64$ |
| ▶17. $-11,5 - (-7,6) = -3,9$ | ▶37. $-20 \div (-10) = 2$ |
| ▶18. $-6,5 - (-8,6) = 2,1$ | ▶38. $9 + 4 = 13$ |
| ▶19. $-5,7 + (-4,6) = -10,3$ | ▶39. $15 - 8 = 7$ |
| ▶20. $-2,2 - 2,4 = -4,6$ | ▶40. $-6 - 3 = -9$ |