



1

(1)	+9.3
(2)	-15
(3)	-15
(4)	+9
(5)	-0.4, $+\frac{1}{3}$, 0
(6)	-3.6

2

(1)	-2
(2)	+3
(3)	+26
(4)	-4.4
(5)	$-\frac{5}{21}$
(6)	$-\frac{3}{4}$

3

(1)	-11
(2)	-3
(3)	5
(4)	+2.2
(5)	7
(6)	$+\frac{13}{5}$

[解説]

2 (1) $(+5) + (-7)$
 $= -(7-5)$
 $= -2$

(3) $(+16) - (-8) - (-5) - (+3)$
 $= (+16) + (+8) + (+5) + (-3)$
 $= (+29) + (-3)$
 $= +26$

(5) $(-\frac{4}{7}) + (+\frac{1}{3})$
 $= (-\frac{12}{21}) + (+\frac{7}{21})$
 $= -(\frac{12}{21} - \frac{7}{21})$
 $= -\frac{5}{21}$

3 (1) $-4 + 6 - 13$
 $= 6 - 4 - 13$
 $= 6 - 17$
 $= -11$

(3) $-5 - (-4) + 8 + (-2)$
 $= -5 + 4 + 8 - 2$
 $= 4 + 8 - 5 - 2$
 $= 12 - 7$
 $= 5$

(5) $3.2 - 3.8 + 7.6$
 $= 3.2 + 7.6 - 3.8$
 $= 10.8 - 3.8$
 $= 7$

(2) $(-5) - (-2) + (+6)$
 $= (-5) + (+2) + (+6)$
 $= (-5) + (+8)$
 $= +3$

(4) $(+1.1) + (-2.8) - (+2.7)$
 $= (+1.1) + (-2.8) + (-2.7)$
 $= (+1.1) + (-5.5)$
 $= -4.4$

(6) $(-\frac{5}{4}) - (-\frac{2}{3}) + (-\frac{1}{6})$
 $= (-\frac{5}{4}) + (+\frac{2}{3}) + (-\frac{1}{6})$
 $= (-\frac{15}{12}) + (+\frac{8}{12}) + (-\frac{2}{12})$
 $= -\frac{9}{12}$
 $= -\frac{3}{4}$

(2) $6 - 1 - (+8)$
 $= 6 - 1 - 8$
 $= 6 - 9$
 $= -3$

(4) $-4.2 - (-6.4)$
 $= -4.2 + (+6.4)$
 $= + (6.4 - 4.2)$
 $= +2.2$

(6) $2 - (-\frac{3}{5})$
 $= 2 + (+\frac{3}{5})$
 $= \frac{10}{5} + (+\frac{3}{5})$
 $= +\frac{13}{5}$



1

(1)	+12
(2)	-10.2
(3)	+12
(4)	+12
(5)	$+\frac{1}{3}, +\frac{2}{5}, 0, -0.22$
(6)	-0.22

2

(1)	-1
(2)	+5
(3)	0
(4)	-5.4
(5)	$+\frac{1}{12}$
(6)	$-\frac{25}{24}$

3

(1)	-9
(2)	-1
(3)	16
(4)	-3.1
(5)	-2.1
(6)	$+\frac{23}{7}$

[解説]

2 (1) $(+7) + (-8)$
 $= -(8-7)$
 $= -1$

(3) $(+7) - (+4) + (-9) - (-6)$
 $= (+7) + (-4) + (-9) + (+6)$
 $= (+13) + (-13)$
 $= 0$

(5) $(-\frac{3}{4}) + (+\frac{5}{6})$
 $= (-\frac{9}{12}) + (+\frac{10}{12})$
 $= +\frac{1}{12}$

3 (1) $-6 - 11 + 8$
 $= 8 - 6 - 11$
 $= 8 - 17$
 $= -9$

(3) $4 + (-3) - (-9) + 6$
 $= 4 - 3 + 9 + 6$
 $= 4 + 9 + 6 - 3$
 $= 19 - 3$
 $= 16$

(5) $5.1 - 8.5 + 1.3$
 $= 5.1 + 1.3 - 8.5$
 $= 6.4 - 8.5$
 $= -2.1$

(2) $(-6) - (-3) + (+8)$
 $= (-6) + (+3) + (+8)$
 $= (-6) + (+11)$
 $= +5$

(4) $(+2.3) + (-1.8) - (+5.9)$
 $= (+2.3) + (-1.8) + (-5.9)$
 $= (+2.3) + (-7.7)$
 $= -5.4$

(6) $(+\frac{3}{8}) - (-\frac{1}{4}) + (-\frac{5}{3})$
 $= (+\frac{3}{8}) + (+\frac{1}{4}) + (-\frac{5}{3})$
 $= (+\frac{9}{24}) + (+\frac{6}{24}) + (-\frac{40}{24})$
 $= -\frac{25}{24}$

(2) $5 - (-6) - 12$
 $= 5 + 6 - 12$
 $= 11 - 12$
 $= -1$

(4) $2.7 - (+5.8)$
 $= 2.7 + (-5.8)$
 $= -(5.8 - 2.7)$
 $= -3.1$

(6) $3 - (-\frac{2}{7})$
 $= 3 + (+\frac{2}{7})$
 $= \frac{21}{7} + (+\frac{2}{7})$
 $= +\frac{23}{7}$



1

(1)	+96
(2)	-2.1
(3)	$-\frac{2}{15}$

[解説]

1 (1) $(+8) \times (-4) \times (-3) = +(8 \times 4 \times 3) = +96$

(2) $(-1.4) \times (+1.5) = -(1.4 \times 1.5) = -2.1$

(3) $\frac{3}{5} \times \left(-\frac{2}{9}\right) = -\left(\frac{\cancel{3}^1}{5} \times \frac{2}{\cancel{9}_3}\right) = -\frac{2}{15}$

2

(1)	+108
(2)	-225

2 (1) $(-3)^3 \times (-2^2) = (-3) \times (-3) \times (-3) \times \{- (2 \times 2)\}$
 $= (-27) \times (-4) = +108$

(2) $-(3 \times 5)^2 = -15^2 = -225$

3

(1)	-7
(2)	0
(3)	$-\frac{14}{3}$

3 (1) $(-42) \div (+6) = -(42 \div 6) = -7$

(2) $0 \div (-3) = 0$

(3) $\left(+\frac{7}{4}\right) \div \left(-\frac{3}{8}\right) = -\left(\frac{7}{\cancel{4}_1} \times \frac{\cancel{8}^2}{3}\right) = -\frac{14}{3}$

4

(1)	+30
(2)	-8
(3)	$-\frac{48}{5}$
(4)	$+\frac{75}{8}$
(5)	$+\frac{3}{4}$
(6)	$+\frac{24}{5}$

4 (1) $(+20) \div (-4) \times (-6) = +(20 \div 4 \times 6) = +30$

(2) $(-8)^2 \div (-4^2) \times 2 = (+64) \div (-16) \times 2 = -(64 \div 16 \times 2) = -8$

(3) $4^2 \div (-15) \times (-3)^2 = 16 \div (-15) \times (+9) = -(16 \div 15 \times 9) = -\frac{48}{5}$

(4) $\left(-\frac{5}{4}\right) \times \left(-\frac{9}{8}\right) \div \left(+\frac{3}{20}\right) = +\left(\frac{5}{\cancel{4}_1} \times \frac{\cancel{9}^3}{8} \times \frac{20}{\cancel{3}_1}\right) = +\frac{75}{8}$

(5) $\left(+\frac{3}{5}\right) \div (-0.7) \times \left(-\frac{7}{8}\right) = +\left(\frac{3}{5} \times \frac{\cancel{10}^1}{\cancel{7}_1} \times \frac{\cancel{7}^1}{8}\right) = +\frac{3}{4}$

(6) $\left(-\frac{1}{3}\right) \div \left(+\frac{5}{8}\right) \times (-3^2) = \left(-\frac{1}{3}\right) \div \left(+\frac{5}{8}\right) \times (-9)$
 $= +\left(\frac{1}{\cancel{3}_1} \times \frac{8}{5} \times \cancel{9}^3\right)$
 $= +\frac{24}{5}$



1

(1)	-36
(2)	-0.52
(3)	$-\frac{2}{21}$

[解説]

1 (1) $(-6) \times (-3) \times (-2) = -(6 \times 3 \times 2) = -36$

(2) $(+0.4) \times (-1.3) = -(0.4 \times 1.3) = -0.52$

(3) $(-\frac{3}{7}) \times (+\frac{2}{9}) = -(\frac{3}{7} \times \frac{2}{9}) = -\frac{2}{21}$

2

(1)	+36
(2)	1600

2 (1) $(-6^2) \times (-1)^3 = (-36) \times (-1) = +36$

(2) $(5 \times 8)^2 = 40^2 = 1600$

3

(1)	-4
(2)	0
(3)	$+\frac{1}{6}$

3 (1) $(+32) \div (-8) = -(32 \div 8) = -4$

(2) $0 \div (-6) = 0$

(3) $(-\frac{4}{9}) \div (-\frac{8}{3}) = +(\frac{4}{9} \times \frac{3}{8}) = +\frac{1}{6}$

4

(1)	-4
(2)	$+\frac{9}{2}$
(3)	-135
(4)	+20
(5)	$-\frac{11}{42}$
(6)	-5

4 (1) $(-9) \times (-8) \div (-18) = -(9 \times 8 \div 18) = -4$

(2) $(-3^2) \times 4 \div (-2)^3 = (-9) \times 4 \div (-8) = +(9 \times 4 \div 8) = +\frac{9}{2}$

(3) $(-5)^2 \div (-15) \times (-3)^4 = 25 \div (-15) \times 81$
 $= -(25 \div 15 \times 81) = -135$

(4) $(+\frac{1}{3}) \times (-\frac{15}{2}) \div (-\frac{1}{8}) = +(\frac{1}{3} \times \frac{15}{2} \times \frac{8}{1}) = +20$

(5) $(+\frac{3}{8}) \div (+\frac{9}{4}) \times (-\frac{11}{7}) = -(\frac{3}{8} \times \frac{4}{9} \times \frac{11}{7}) = -\frac{11}{42}$

(6) $(-3)^2 \times (+\frac{5}{8}) \div (-\frac{9}{8}) = 9 \times (+\frac{5}{8}) \div (-\frac{9}{8})$
 $= -(9 \times \frac{5}{8} \times \frac{8}{9})$
 $= -5$



1

[解説]

(1)	2, 3, 5, 7, 11, 13	
(2)	47	
(3)	77	
(4)	①	$2 \times 3^2 \times 5$
	②	$2^3 \times 7^2$
	③	$2^2 \times 3^3 \times 7$
	④	$3^2 \times 7 \times 11$

1 (3) $2 + 3 + 5 + 7 + 11 + 13 + 17 + 19 = 77$

(4) ①
$$\begin{array}{r} 2 \overline{) 90} \\ 3 \overline{) 45} \\ 3 \overline{) 15} \\ \quad 5 \end{array}$$

②
$$\begin{array}{r} 2 \overline{) 392} \\ 2 \overline{) 196} \\ 2 \overline{) 98} \\ 7 \overline{) 49} \\ \quad 7 \end{array}$$

③
$$\begin{array}{r} 2 \overline{) 756} \\ 2 \overline{) 378} \\ 3 \overline{) 189} \\ 3 \overline{) 63} \\ 3 \overline{) 21} \\ \quad 7 \end{array}$$

④
$$\begin{array}{r} 3 \overline{) 693} \\ 3 \overline{) 231} \\ 7 \overline{) 77} \\ \quad 11 \end{array}$$

2

(1)	①	15	
	②	27	
(2)	①	かける数	3
		できる数	42^2
	②	かける数	15
		できる数	135^2
(3)	①	割る数	33
		できる数	5^2
	②	割る数	6
		できる数	14^2

2 (1) ① $225 = 3 \times 3 \times 5 \times 5 = 3^2 \times 5^2 = (3 \times 5)^2 = 15^2$

② $729 = 3 \times 3 \times 3 \times 3 \times 3 \times 3 = 3^2 \times 3^2 \times 3^2 = (3 \times 3 \times 3)^2 = 27^2$

(2) ① $588 = 2 \times 2 \times 3 \times 7 \times 7 = 2^2 \times 3 \times 7^2$
 2乗にならないのは3なので、3をかけて、
 $588 \times 3 = (2^2 \times 3 \times 7^2) \times 3 = 2^2 \times 3^2 \times 7^2 = (2 \times 3 \times 7)^2 = 42^2$

② $1215 = 3 \times 3 \times 3 \times 3 \times 3 \times 5 = 3^2 \times 3^2 \times 3 \times 5$
 2乗にならないのは3×5なので、15をかけて、
 $1215 \times 15 = (3^2 \times 3^2 \times 3 \times 5) \times (3 \times 5) = 3^2 \times 3^2 \times 3^2 \times 5^2$
 $= (3 \times 3 \times 3 \times 5)^2 = 135^2$

(3) ① $825 = 3 \times 5 \times 5 \times 11 = 3 \times 5^2 \times 11$
 2乗にならないのは3×11なので、33で割って、
 $825 \div 33 = (3 \times 5^2 \times 11) \div (3 \times 11) = 5^2$

② $1176 = 2 \times 2 \times 2 \times 3 \times 7 \times 7 = 2^2 \times 2 \times 3 \times 7^2$
 2乗にならないのは2×3なので、6で割って、
 $1176 \div 6 = (2^2 \times 2 \times 3 \times 7^2) \div (2 \times 3) = 2^2 \times 7^2 = (2 \times 7)^2 = 14^2$



1

[解説]

(1)	2, 3, 5, 7, 11, 13
(2)	29
(3)	77
(4)	① $2^2 \times 3 \times 7$
	② $2^2 \times 5^3$
	③ $2^3 \times 3^2 \times 7$
	④ $3 \times 5^2 \times 13$

1 (3) $2 + 3 + 5 + 7 + 11 + 13 + 17 + 19 = 77$

(4) ①
$$\begin{array}{r} 2 \overline{) 84} \\ 2 \overline{) 42} \\ 3 \overline{) 21} \\ \quad 7 \end{array}$$

②
$$\begin{array}{r} 2 \overline{) 500} \\ 2 \overline{) 250} \\ 5 \overline{) 125} \\ 5 \overline{) 25} \\ \quad 5 \end{array}$$

③
$$\begin{array}{r} 2 \overline{) 504} \\ 2 \overline{) 252} \\ 2 \overline{) 126} \\ 3 \overline{) 63} \\ 3 \overline{) 21} \\ \quad 7 \end{array}$$

④
$$\begin{array}{r} 3 \overline{) 975} \\ 5 \overline{) 325} \\ 5 \overline{) 65} \\ \quad 13 \end{array}$$

2

(1)	①	14	
	②	16	
(2)	①	かける数	7
		できる数	70^2
	②	かける数	6
		できる数	72^2
(3)	①	割る数	26
		できる数	5^2
	②	割る数	21
		できる数	6^2

2 (1) ① $196 = 2 \times 2 \times 7 \times 7 = 2^2 \times 7^2 = (2 \times 7)^2 = 14^2$

② $256 = 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 = 2^2 \times 2^2 \times 2^2 \times 2^2 = (2 \times 2 \times 2 \times 2)^2 = 16^2$

(2) ① $700 = 2 \times 2 \times 5 \times 5 \times 7 = 2^2 \times 5^2 \times 7$
2乗にならないのは7なので、7をかけて、
 $700 \times 7 = (2^2 \times 5^2 \times 7) \times 7 = 2^2 \times 5^2 \times 7^2 = (2 \times 5 \times 7)^2 = 70^2$

② $864 = 2 \times 2 \times 2 \times 2 \times 2 \times 3 \times 3 \times 3 = 2^2 \times 2^2 \times 2 \times 3^2 \times 3$
2乗にならないのは2×3なので、6をかけて、
 $864 \times 6 = (2^2 \times 2^2 \times 2 \times 3^2 \times 3) \times (2 \times 3) = 2^2 \times 2^2 \times 2^2 \times 3^2 \times 3^2 = (2 \times 2 \times 2 \times 3 \times 3)^2 = 72^2$

(3) ① $650 = 2 \times 5 \times 5 \times 13 = 2 \times 5^2 \times 13$
2乗にならないのは2×13なので、26で割って、
 $650 \div 26 = (2 \times 5^2 \times 13) \div (2 \times 13) = 5^2$

② $756 = 2 \times 2 \times 3 \times 3 \times 3 \times 7 = 2^2 \times 3^2 \times 3 \times 7$
2乗にならないのは3×7なので、21で割って、
 $756 \div 21 = (2^2 \times 3^2 \times 3 \times 7) \div (3 \times 7) = 2^2 \times 3^2 = (2 \times 3)^2 = 6^2$



[解 説]

(1)	-19
(2)	21
(3)	8
(4)	-30
(5)	-2
(6)	-2
(7)	-9
(8)	-8
(9)	-25
(10)	-1

$$\begin{aligned}(1) \quad & -7+3 \times(-4) \\ & =-7+(-12) \\ & =-19\end{aligned}$$

$$\begin{aligned}(2) \quad & 24-12 \div 4 \\ & =24-3 \\ & =21\end{aligned}$$

$$\begin{aligned}(3) \quad & -2 \times(-7)+(-48) \div 8 \\ & =14-6 \\ & =8\end{aligned}$$

$$\begin{aligned}(4) \quad & -5 \times(-3+9) \\ & =-5 \times 6 \\ & =-30\end{aligned}$$

$$\begin{aligned}(5) \quad & (-6)^2-38 \\ & =36-38 \\ & =-2\end{aligned}$$

$$\begin{aligned}(6) \quad & 7+(-3)^2 \\ & =7+(-9) \\ & =-2\end{aligned}$$

$$\begin{aligned}(7) \quad & 27 \div(2-5) \\ & =27 \div(-3) \\ & =-9\end{aligned}$$

$$\begin{aligned}(8) \quad & 4+\frac{2}{3} \times(-18) \\ & =4+(-12) \\ & =-8\end{aligned}$$

$$\begin{aligned}(9) \quad & (-3+8) \div\left(-\frac{1}{5}\right) \\ & =5 \div\left(-\frac{1}{5}\right) \\ & =5 \times(-5) \\ & =-25\end{aligned}$$

$$\begin{aligned}(10) \quad & \left(\frac{2}{3}-\frac{3}{4}\right) \times 12 \\ & =\frac{2}{3} \times 12-\frac{3}{4} \times 12 \\ & =8-9 \\ & =-1\end{aligned}$$



[解説]

(1)	10
(2)	26
(3)	-51
(4)	21
(5)	-7
(6)	-31
(7)	-55
(8)	$-\frac{3}{7}$
(9)	$-\frac{1}{18}$
(10)	16

$$\begin{aligned} (1) \quad & 13 + (-12) \div 4 \\ & = 13 - (12 \div 4) \\ & = 13 - 3 \\ & = 10 \end{aligned}$$

$$\begin{aligned} (3) \quad & 12 \div (-2) + (-9) \times 5 \\ & = - (12 \div 2) - (9 \times 5) \\ & = -6 - 45 \\ & = -51 \end{aligned}$$

$$\begin{aligned} (5) \quad & 63 \div (-2 - 7) \\ & = 63 \div (-9) \\ & = -7 \end{aligned}$$

$$\begin{aligned} (7) \quad & -30 - (-5)^2 \\ & = -30 - 25 \\ & = -55 \end{aligned}$$

$$\begin{aligned} (9) \quad & \left(-\frac{2}{9}\right) \div (-3+7) \\ & = \left(-\frac{2}{9}\right) \div 4 \\ & = \left(-\frac{2}{9}\right) \times \frac{1}{4} \\ & = -\frac{1}{18} \end{aligned}$$

$$\begin{aligned} (2) \quad & -4 + (-5) \times (-6) \\ & = -4 + (5 \times 6) \\ & = -4 + 30 \\ & = 26 \end{aligned}$$

$$\begin{aligned} (4) \quad & -3 \times (4 - 11) \\ & = -3 \times (-7) \\ & = 21 \end{aligned}$$

$$\begin{aligned} (6) \quad & 18 - 7^2 \\ & = 18 - 49 \\ & = -31 \end{aligned}$$

$$\begin{aligned} (8) \quad & \frac{3}{7} - \frac{1}{7} \times 6 \\ & = \frac{3}{7} - \frac{6}{7} \\ & = -\frac{3}{7} \end{aligned}$$

$$\begin{aligned} (10) \quad & 30 \times \left(\frac{5}{6} - \frac{3}{10}\right) \\ & = 30 \times \frac{5}{6} - 30 \times \frac{3}{10} \\ & = 25 - 9 \\ & = 16 \end{aligned}$$