

s. 16 kertolasku

esim. $\overset{+}{2} \cdot \overset{+}{3} = \overset{+}{6}$

$$\overset{-}{2} \cdot \overset{+}{3} = \overset{-}{6}$$

$$\overset{+}{2} \cdot \overset{-}{(-3)} = \overset{-}{6}$$

$$\overset{-}{2} \cdot \overset{-}{(-3)} = \overset{+}{6}$$

HUOM!
 $-2-3=.$

s. 18 (53) (54) (55) (56)

(53) a) $6 \cdot 8 = 48$

b) $-5 \cdot 7 = -35$

c) $3 \cdot (-4) = -12$

d) $-9 \cdot (-2) = 18$

(54) a) $2 \cdot (-4) = -8$

b) $-4 \cdot 7 = -28$

c) $-5 \cdot (-9) = 45$

d) $-2 \cdot 8 = -16$

55

$$a) -6 \cdot (-3) = 18$$

$$b) 7 \cdot (-7) = -49$$

$$c) -10 \cdot (-6) = 60$$

$$d) -7 \cdot 5 = -35$$

56

$$a) 12 \cdot (-4) = -48$$

$$b) -5 \cdot (-11) = 55$$

$$c) 2 \cdot 11 = 22$$

$$d) -11 \cdot (-11) = 121$$

s.17 Jakolasku

$$\overset{+}{6} : \overset{+}{3} = \overset{+}{2} \longleftrightarrow \frac{\overset{+}{6}}{\overset{+}{3}} = 2$$

$$\overset{-}{6} : \overset{+}{3} = \overset{-}{2} \longleftrightarrow \frac{\overset{-}{6}}{\overset{+}{3}} = -2$$

$$\overset{+}{6} : \overset{-}{3} = \overset{-}{2} \longleftrightarrow \frac{\overset{+}{6}}{\overset{-}{3}} = -2$$

$$\overset{-}{6} : \overset{-}{3} = \overset{+}{2} \longleftrightarrow \frac{\overset{-}{6}}{\overset{-}{3}} = 2$$

s.19

(60) (61) (62) (63)

(60)

a) $16 : 4 = 4$

b) $-12 : 6 = -2$

c) $24 : (-8) = -3$

d) $-36 : (-4) = 9$

(61)

a) $\frac{-4}{2} = -2$

c) $\frac{-81}{-9} = 9$

b) $\frac{18}{-3} = -6$

d) $\frac{25}{5} = 5$

62

$$a) \frac{42}{-2} = -21$$

$$c) \frac{-10}{1} = -10$$

$$b) \frac{-36}{-12} = 3$$

$$d) \frac{63}{-21} = -3$$

63

$$a) \frac{77}{-11} = -7$$

$$d) \frac{-110}{11} = -10$$

$$b) \frac{-55}{-5} = 11$$

$$e) \frac{-35}{10} = -3,5$$

$$c) \frac{144}{-12} = -12$$

$$\frac{-35}{10} = -3\frac{5}{10} = -3\frac{1}{2}$$

$$f) \frac{25}{-2} = -12,5 \quad \text{tai} \quad \frac{25}{-2} = -12\frac{1}{2}$$

52

s.18

Merkitse ja laske
lukujen 8 ja -4

a) summa

$$8 + (-4) \\ = 8 - 4 = 4$$

b) erotus

$$8 - (-4) \\ = 8 + 4 = 12$$

c) Vastalukujen summa

$$\begin{aligned} & -8 + (-(-4)) \\ &= -8 + (4) \\ &= -8 + 4 \\ &= -4 \end{aligned}$$

d) Vastalukujen erotus

$$\begin{aligned} & -8 - (-(-4)) \\ &= -8 - (4) \\ &= -8 - 4 = -12 \end{aligned}$$

s.19
(69) -9 ja 3

a) tulo $-9 \cdot 3 = -27$

b) osamäärä $\frac{-9}{3} = -3$

c) Vastalukujen tulo

$$\begin{aligned} & -(-9) \cdot (-3) \\ &= 9 \cdot (-3) = -27 \end{aligned}$$

s.20 (71) (72) (75) (76) (77)