1. domácí úkol – týden od 12. 9. do 19. 9. 2017

Termín odevzdání: 19. 9. 2017

1) Vypočtěte:

$14 : (-2) + (-49) : (-7) = -7 + 7 = 0$

$10 - 7 \,.\, (-2) - 3 : (-1) = 10 - (-14) - (-3) = 27$

$(-4) - 12 : (-3) + (-5) = -4 - (-4) - 5 = -5$

$[(-9) - 1) : [(7 - 1) : (-3)] + 1 = -10 : (-2) + 1 = 5 + 1 = 6$

$(-4) + (-10) : 2 + [3 \,.\, (5 - 2) : (-9) + 4] \,.\, (-1) = -4 - 5 + [3 \,.\, 3 : (-9) + 4] \,.\, (-1)$

$= -4 - 5 + (-1 + 4).\ (-1) = -4 - 5 + 3 \,.\, (-1) = -4 - 5 - 3 = -12$

2) Doplň jednu závorku tak, aby platilo:

$(12 + 18) : 6 - 3 = 2$

$3 \,.\, (2 + 4) - 8 = 10$

$(7 \,.\, 9 + 12) : 3 - 2 = 23$

3) Vypočti:

$(0{,}6 + 0{,}4) \,.\, 0{,}23 = 1 \,.\, 0{,}23 = 0{,}23$

$0{,}8 \,.\, (0{,}9 + 0{,}2) = 0{,}8 \,.\, 1{,}1 = 0{,}88$

$25{,}5 : (6{,}7 - 1{,}7) = 25{,}5 : 5 = 5{,}1$

$(19{,}8 - 4{,}5) : 0{,}1 = 15{,}3 : 0{,}1 = 153$

$(15{,}04 - 8{,}005) \,.\, (3{,}7 - 2{,}06) = 7{,}395 \,.\, 1{,}64 = 12{,}1278$

$5{,}2 + 0{,}8 \,.\, 0{,}7 = 5{,}2 + 0{,}56 = 5{,}76$

4) Vypočti:

$$\left(\frac{37}{5} + \frac{43}{10}\right) : \frac{31}{8} = \left(\frac{74 + 43}{10}\right) : \frac{31}{8} = \frac{117}{10} \cdot \frac{8}{31} = \frac{117}{5} \cdot \frac{4}{31} = \frac{468}{155}$$

$$\left(\frac{47}{8} : \frac{47}{8}\right) - \frac{47}{8} = \left(\frac{47}{8} \cdot \frac{8}{47}\right) - \frac{47}{8} = 1 - \frac{47}{8} = \frac{8-47}{8} = -\frac{39}{8}$$

$$\frac{11}{12} : \frac{1}{2} - \frac{3}{4} : \frac{3}{4} = \frac{11}{12} \cdot \frac{2}{1} - \frac{3}{4} \cdot \frac{4}{3} = \frac{11}{6} - \frac{1}{1} = \frac{11-6}{6} = \frac{5}{6}$$

$$\frac{1}{2} - \left[\frac{2}{3} : \left(\frac{3}{4} + \frac{11}{12}\right)\right] = \frac{1}{2} - \left[\frac{2}{3} : \left(\frac{9+11}{12}\right)\right] = \frac{1}{2} - \left[\frac{2}{3} \cdot \frac{12}{20}\right] = \frac{1}{2} - \frac{1}{5} = \frac{5-2}{10} = \frac{3}{10}$$

$$\left(1\frac{2}{3} - 1\frac{1}{2}\right) : \left(3\frac{1}{2} - 2\frac{2}{3}\right) = \left(\frac{5}{3} - \frac{3}{2}\right) : \left(\frac{7}{2} - \frac{8}{3}\right) = \frac{10-9}{6} : \frac{21-16}{6} = \frac{1}{6} \cdot \frac{6}{5} = \frac{1}{5}$$

5) Narýsuj trojúhelník včetně náčrtku, postupu konstrukce a diskuze:

Narýsuj trojúhelník OPQ, kde o=11,7 cm, $|\sphericalangle OPQ| = 75°$, $|\sphericalangle PQO| = 50°$

Postup konstrukce:

1. $PQ, |PQ| = 11{,}7\ cm$
2. $\sphericalangle OPQ, |\sphericalangle OPQ| = 75°$
3. $\sphericalangle PQO, |\sphericalangle PQO| = 50°$
4. $O, O \in \mapsto PO \cap \mapsto QO$
5. $\Delta\, OPQ$

Úloha má 1 řešení

Narýsuj trojúhelník KLM, kde m=11 cm, k=8,3 cm, $|\sphericalangle KLM| = 52°$

Postup konstrukce:

1. $KL, |KL| = 11\ cm$
2. $\sphericalangle KLM, |\sphericalangle KLM| = 52°$
3. $k, k(L, r = 8{,}3\ cm)$
4. $M, M \in k \cap \mapsto LM$
5. $\Delta\ KLM$