

## 2023年度 算数 前期午前 解答解説

1. 《計算問題》(3点×7 計21点)

答 (1) 2 (2) 14 (3)  $\frac{13}{5}$  (4)  $\frac{1}{2}$  (5)  $\frac{1}{3}$  (6) 17 (7)  $\frac{1}{11}$

解説

(1) 略

(2) 略

$$(3) \frac{16}{5} + \frac{4}{5} - \frac{7}{5} = \frac{13}{5}$$

$$(4) \frac{5}{21} \times \frac{15}{8} \times \frac{28}{25} = \frac{1}{2}$$

$$(5) \frac{2}{3} - \frac{1}{4} \times \frac{4}{3} = \frac{1}{3}$$

$$(6) 4 \times (20 - \square) = 12$$

$$20 - \square = 3$$

$$\square = 17$$

$$(7) \left( \frac{15}{20} - \frac{4}{20} \right) \times \frac{100}{121} - \frac{4}{11} = \frac{11}{20} \times \frac{100}{121} - \frac{4}{11} = \frac{5}{11} - \frac{4}{11} = \frac{1}{11}$$

2. 《小問集合》(4点×10 計40点)

答 (1) 36 (2) 90分 (3) 16 (4) 480km (5) 18回 (6) 3年後 (7) 4% (8) 4回  
(9) 12個ずつ (10) 時速43.2km

解説

(1) 略

(2)  $60 + 30 = 90$  (分)

(3) 3ずつ増えているので  $10 + 3 + 3 = 16$

(4)  $120 \times 4 = 480$  (km)

(5)  $30 \times 0.6 = 18$  (回)

(6)  $39 - 11 = 28$

$$28 \div 2 = 14$$

$14 - 11 = 3$  (年後)

(7)  $12 + 288 = 300$

$$12 \div 300 = 0.04$$

$0.04 \times 100 = 4$  (%)

(8)  $(80 - 72) \div (74 - 72) = 4$ (回)

(9)  $360 \div (150 - 120) = 12$  (個ずつ)

(10)  $(135 + 105) \div 40 = 6$

$$18 - 6 = 12$$

$12 \times 3600 \div 1000 = \text{時速}43.2\text{km}$

3. 《図形》(4点×4 計16点)

(1) 50度 (2) 9.72 cm<sup>2</sup> (3) 6.28 cm<sup>2</sup> (4) 96 cm<sup>3</sup>

解説

(1)  $15 + 35 = 50(\text{度})$

(2)  $16 - 6.28 = 9.72(\text{cm}^2)$

(3)  $2 \times 2 \times 3.14 \times \frac{180}{360} = 6.28(\text{cm}^2)$

(4)  $(8 + 4) \times 4 \div 2 = 24$   
 $24 \times 4 = 96(\text{cm}^3)$

4. 《資料の読み取り》( (1) 3点 (2),(3)各4点 計11点)

答 (1) 4 (2) 9人 (3) 35%

解説

(1)  $20 - (1 + 6 + 7 + 2) = 4$

(2)  $7 + 2 = 9(\text{人})$

(3)  $7 \div 20 = 0.35$   
 $0.35 \times 100 = 35(\%)$

5. 《速さに関する問題》(4点×3 計12点)

答 (1)上り…時速12km, 下り…時速18km (2) 時速3km (3) 21.6km

解説

(1) 上りは36kmを3時間で進むので,  $36 \div 3 = \text{時速}12\text{km}$   
下りは36kmを2時間で進むので,  $36 \div 2 = \text{時速}18\text{km}$

(2)  $(12 + 18) \div 2 = 15$   
 $18 - 15 = 3$

(3) 13時の2せきの船の距離は  $36 - 12 \times 1 = 24\text{km}$   
 $24 \div (12 + 18) = 0.8\text{時間}$   
 $12 \times 1.8 = 21.6$