



Gr. 8

Vraestel 1 / Paper 1

Nov. 2012

1.1 2
1.2 $\sqrt[3]{-8}$, -4

1.3 $\sqrt{-16}$

1.4 2; $-\frac{9}{5}$; $\sqrt[3]{-8}$; $3\frac{1}{2}$

1.5 π or $\sqrt{2}$ or 5,326491...

1.6 2; 25

1.7 2

2.1 $= 2^{10}$

2.2 $= \sqrt{2^{10}} = 2^5 = 32$

3.1.1 1

3.1.2 3

3.2.1 4

3.2.2 3

3.2.3 -2

3.2.4 9

3.2.5 $4(-1)^4 - 7(-1)^3 + 9 - 2(-1)$

$= 4 + 7 + 9 + 2$

$= 22$

4.1 -3m

4.2 $-28m^2$

4.3 -3ab

4.4 $18pq^4$

4.5 $3a^2 - 6ab - a^2 + 7ab$

$= 2a^2 + ab$

4.6 $\frac{4x^2}{y^2}$

4.7 $49m^6$

4.8 $9a + 6a + 4a$

$= 19a$

4.9 $24m + m - 8m \times 2$

$= 25m - 16m$

$= 9m$

5.1.1 $7,733 \times 10^7$

5.1.2 $9,639 \times 10^8$

5.2 $5 \times 10^{-3} \cdot 0,00507$; 0,0052

5.3.1 $P = 2(-2) - 3(3)$

$= -4 - 9 = -13$

5.3.2 $P = \frac{1}{2}(-2)^2 + 4(-2)(3)$

$= 2 - 24 = -22$



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"Unless the Lord builds the house, they labor in vain who build it." Ps. 127:1

$$6.1 = \sqrt{\frac{9}{4}} = \frac{3}{2}$$

$$6.2 = 6 \div 2 = 3$$

$$6.3 = \frac{10}{9} - \frac{7}{3} + \frac{9}{18}$$

$$= \frac{20 - 42 + 9}{18}$$

$$= \frac{-13}{18}$$

$$6.4 = \frac{4}{7} \times \frac{5}{14} \times \frac{3}{4}$$

$$= \frac{15}{98}$$

$$6.5 = \frac{-5x}{5} + \frac{9x^2}{3x}$$

$$= -x + 3x = 2x$$

$$7.1 \quad x = -12$$

$$7.2 \quad 6x = 44$$

$$x = \frac{22}{3}$$

$$7.3 \quad \therefore 4 - x + 5 = 2x - 6 - 3 - 2x$$

$$-x = -9 - 9$$

$$x = 18$$

$$7.4$$

$$\therefore \frac{x}{4} = \frac{6}{18}$$

$$18x = 24$$

$$x = \frac{24}{18} = \frac{4}{3}$$

$$7.5$$

$$2(x) + 2(2x) = 36$$

$$6x = 36$$

$$x = 6 \text{ cm}$$

$$8.1 = 200 : 40$$

$$5 : 1$$

$$8.2 \quad 800 : 1200$$

$$2 : 3$$

$$\text{John} = \frac{2}{5} \times 500 = R200$$

$$\text{Amanda} = R300$$

$$8.3 \quad 390 \div 6 = 65 \text{ km/h}$$

$$520 \div 65 = 8 \text{ h}$$

$$8.4.1 \quad \dots 3; -1$$

$$8.4.2 \quad \dots 40; 80$$

$$9.1 \quad \frac{70}{250} \times 100 = 28\%$$

$$9.2.1 = \frac{300 \times 12 \times 3}{100} = R108$$

$$9.2.2 \quad R408$$

$$9.3 \quad 4500 \times 0,8 = R3600$$

$$9.4 \quad 39 \div 0,0853 = R457,21$$

$$550 - 457,21 = R92,79$$