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Taller operaciones matemáticas y problemas

Desarrollo

1. $33+7\cdot5-20$

$33+35-20$

$68-20$

48

2. $27+9-49/7+17$

$27+9-7+17$

$36-7+17$

$29+17$

46

3. $(4\cdot4-6)(-15+20)$

$(16-6)(-15+20)$

$(10)(-15+20)$

$(10)(5)$

50

4. $5+5(2\cdot2)^2$

$5+5(4)^2$

$5+5(16)$

$5+80$

85

5. $550-[2(2-4\cdot2)^2-(3\cdot3+1)]$

$550-[2(2-8)^2-(3\cdot3+1)]$

$550-[2(2-8)^2-(9+1)]$

$550-[2(2-8)^2-(10)]$

$550-[2(-6)^2-(10)]$

$550-[2(36)-10]$

$550-[72-10]$

$550-[62]$

$550-62$

$=488$

6. $9/[6/(-4+2)]$

$9/[6/-2]$

$9/-3$

$=-3$

7. $[(-2)^5-(-3)^2]^2$

$[-32-(-3)^2]^2$

$[-32-(9)]^2$

$[-32-9]^2$

$[-32-9]^2$

$[-41]^2$

1681

8. $\{[(15-5)^2+(2\cdot3)^2]/[(10-5)^2-(50-25)]\}^3$

$\{[(10)^2+(2\cdot3)^2]/[(10-5)^2-(50-25)]\}^3$

$\{[10^2+6^2]/[(10-5)^2-(50-25)]\}^3$

$\{[10^2+6^2]/[5^2-25]\}^3$

$\{[100+6^2]/[5^2-25]\}^3$

$\{[100+36]/[5^2-25]\}^3$

$\{[100+36]/[25-25]\}^3$

$\{[136]/0\}^3$

$\{136/0\}^3$

9. $15-\{7+4\cdot3-[((-2)^2)\cdot2-6]\}^3+((2\cdot2)+6-5\cdot3)+3-(5-(2^3)/2$

$15-\{7+4\cdot3-[((-2)^2)\cdot2-6]\}^3+((2\cdot2)+6-5\cdot3)+3-(5-(2^3)/2$

$15-\{7+4\cdot3-[(4)\cdot2-6]\}^3+(4+6-5\cdot3)+3-(5-$

$15-\{7+4\cdot3-[4\cdot2-6]\}^3+(4+6-5\cdot3)+3-(5-8/2)$

$15-\{7+4\cdot3-[4\cdot2-6]\}^3+(4+6-15)+3-(5-4)$

$15-\{7+4\cdot3-[4\cdot2-6]\}^3+(4+(-9)+3-1$

$15-\{7+4\cdot3-[8-6]\}^3+4-9+3-1$

$15-\{7+4\cdot3-2\}^3+4-9+3-1$

$15-\{7+12-2\}^3+4-9+3-1$

$15-\{19-2\}^3+4-9+3-1$

$15-17+4-9+3-1$

$-2+4-9+3-1$

$2-5$

10. $20\%2+10/2\cdot2$

$0+10/2\cdot2$

$0+5\cdot2$

$0+10$

10

11. $5\%2+10\cdot2$

$1+10\cdot2$

$1+20$

21

Regla de tres

1. 4 días → 160 cop
16 días → x

$x = \frac{160 \cdot 16}{4} = 640$ cop

R) José cobra 640 por 16 días

• 16 días → 640 cop
1 día → x

$x = \frac{640 \cdot 1}{16} = 40$

R) José gana 40 cop por sábado

2. 192 pag → 10 horas
x → 3 horas

$x = \frac{192 \cdot 3}{10} = 57,6$

R) 3 horas el editor revisa 57,6 páginas

3. 2000 tornillos → 6 horas
x → 2 horas

$x = \frac{2000 \cdot 2}{6} = 666,66$

R) la máquina pone 666,66 tornillos en 2 horas

4. 4p → 10 días
6p → x

$x = \frac{10}{\frac{6}{4}}$ $x = 6,66$ días

R) 6 pintores trabajan 6,66 días

5. 1 h → 80 Km/h
x → 100 Km/h

$x = \frac{1}{\frac{100}{80}}$

$x = 0.8$ h

R) aumenta a 100 Km/h toda 0.8 h

6. 16 → 30 m
36 → x

$x = \frac{1 \cdot 30}{3} = 10$ m

R) tarda 10 min con 36 vueltas

• Despeje y ecuaciones

• $4x = 12$

$x = 12/4$

$x = 3$

• $5x - 3 = 66 + 2x$

$5x - 2x = 66 + 3$

$3x = 69$

$3x = \frac{64}{3}$

$x = 23$

• $9x - 5 = 3(x - 2) + 13/2$

$9x - 5 = 3x - 6 + 6,5$

$9x - 3x = 5 - 6 + 6,5$

$6x = 5,5$

$x = 5,5/6$

$x = 0,92$

• $3 + 3x - 1 = x + 2 + 2x$

$3 - 2 - 1 = x - 3x + 2x$

$1 - 1 = -2x + 2x$

$0 = 0$