

1°C)

16/11/20

42

$$\begin{aligned}
 c) & \left[(\sqrt{9} - \sqrt{25})^4 \right]^5 = \\
 & = \left[(3 - 5)^4 \right]^5 = \\
 & = \left[(-2)^4 \right]^5 = \\
 & = 16^5 = 1048576
 \end{aligned}$$

$$\begin{aligned}
 d) & 5^2 \cdot (\sqrt{64} + 8 : 2) = \\
 & = 5^2 \cdot (8 + 8 : 2) = \\
 & = 5^2 \cdot (8 + 4) = \\
 & = 5^2 \cdot 12 = \\
 & = 25 \cdot 12 = \\
 & = 300
 \end{aligned}$$

$$\begin{aligned}
 e) & (9^2 - 7^2) : \sqrt{64} = \\
 & = (81 - 49) : \sqrt{64} = \\
 & = 32 : \sqrt{64} = \\
 & = 32 : 8 = \\
 & = 4
 \end{aligned}$$

$$\begin{aligned}
 f) & (-\sqrt{49} + 3^4 : 3^2)^5 = \\
 & = (-7 + 81 : 9)^5 = \\
 & = (-7 + 9)^5 = \\
 & = 2^5 = \\
 & \quad 32
 \end{aligned}$$

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La potencia de una multiplicación

$$a^n \cdot b^n = (a \cdot b)^n$$

Ejemplos: $2^{\boxed{3}} \cdot 3^{\boxed{3}} = (2 \cdot 3)^3$

$$(-2)^4 \cdot 5^4 = [(-2) \cdot 5]^4$$

La potencia de la división

$$\boxed{a^n : b^n = (a : b)^n}$$

Ejemplos: $16^4 : 8^4 = (16 : 8)^4$

$$(-32)^2 : (-4)^2 = [(-32) : (-4)]^2$$

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11 a) $(5 \cdot 2 \cdot 4)^4 = 40^4 = 2560000$

b) $[2 \cdot (-3) \cdot 5]^3 = (-30)^3 = -27000$

c) $[(-16) : 8]^3 = (-2)^3 = -8$

d) $[6 : (-3)]^5 = (-2)^5 = -32$

12 a) $(2 \cdot 5)^3 = \boxed{2}^3 \cdot 5^{\boxed{3}} = 8 \cdot \boxed{125} = \boxed{1000}$

b) $[(-3) \cdot 10]^{\boxed{3}} = \boxed{-3}^3 \cdot 10^3 = -27 \cdot \boxed{1000} = \boxed{}$
 $= -27000$

$$c) [(-12) : (-2)]^3 = (-12)^{\boxed{3}} : \boxed{-2}^3 = \boxed{} : \boxed{} = \boxed{} \\ = -1728 : (-8) = 216$$

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$$\textcircled{43} \text{ a) } \boxed{6}^2 - \boxed{5}^2 \cdot \boxed{4}^2 + \boxed{7}^2 = \\ = 36 - \boxed{25 \cdot 16} + 49 = \\ = \boxed{36 - 400} + 49 = \\ = -364 + 49 = \\ = -315$$

$$\text{b) } \boxed{(3-5)}^2 : (-1) \cdot 6 - \boxed{5}^2 = \\ = \boxed{(-2)}^2 : (-1) \cdot 6 - 25 = \\ = \boxed{4 : (-1)} \cdot 6 - 25 = \\ = \boxed{-4 \cdot 6} - 25 = \\ = -24 - 25 = \\ = -49$$

Terminar ejercicio 43
c), d) y e)

