

## Worksheet 2015-9EB-00003(2)

(1) Simplify (without a calculator):

Write the answers as positive exponents!

(a) 
$$\frac{(0,5)^{3x} \times (4)^{2x}}{\sqrt{16x^8}}$$

(b) 
$$\frac{8^{3m-1} \times 4^{1-2m}}{32^m}$$

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(c) 
$$\sqrt{\frac{0,09}{0,81}} \div \sqrt[3]{64}$$

(d) 
$$\sqrt[x]{x^{5x}} + 2(x^2)^3$$

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(2) Solve  $x$ :

(a)  $-2x^{\frac{1}{2}} = -18$

(b)  $3^{2x+1} \cdot 27^2 = 9^{1-x} \cdot 3$

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(3) Simplify and write the answer in scientific notation:

(a)  $(1,44 \times 10^3) \div (1,2 \times 10^{-2})$

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(b)  $(4,0 \times 10^2)^3$

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