

(1) Calculate (without using a calculator):

(a)  $4^2 - 1^3 - \sqrt{9}$

$= 16 - 1 - 3$

$= 15 - 3$

$= 12$

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(b)  $\sqrt[3]{27} + 1 \times 5^2$

$= 3 + 1 \times 25$

$= 3 + 25$

$= 28$

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(c)  $0 \times \sqrt{81} + 2^3$

$= 0 + 8$

$= 8$

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(d)  $(12 - 6)^2$

$= (6)^2$

$= 36$

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(e)  $\sqrt{36} + \sqrt[3]{1}$

$= 6 + 1$

$= 7$

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(f)  $\sqrt{(8)^2}$

$= \sqrt{64}$

$= 8$

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(g)  $12^2 + \sqrt{49} \times 0$

$= 144 + 0$

$= 144$

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(h)  $\sqrt{100 + 21}$

$= \sqrt{121}$

$= 11$

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- (2) The difference between the largest and smallest factors of 11 is squared.  
What will the answer be?

Largest factor of 11  $\rightarrow$  11

Smallest factor of 11  $\rightarrow$  1

$$\therefore (11 - 1)^2$$

$$= 10^2$$

$$= 100$$

- (3) Calculate (without using a calculator):

$$7 \times 10^5 + 3 \times 10^3 + 1 \times 10 + 6$$

$$= 7 \times 100\,000 + 3 \times 1\,000 + 10 + 6$$

$$= 700\,000 + 3\,000 + 16$$

$$= 703\,016$$