4 SQUARES AND SQUARE ROOTS

Q1. Find whether the square root of the following perfect squares will be even or odd:

	Number		Odd/Even
a.	14641	:	_____
b.	10404	:	_____
c.	784	:	_____
d.	8649	:	_____

Q2. Find the smallest number by which each of the following numbers should be divided to make it a perfect square and fill in the blanks:

a. 48600

48600 ÷ ____ = ____ is a perfect square

b. 15120

15120 ÷ ____ = ____ is a perfect square

Q3. Find the square root of the following, using long division method.

a. $\sqrt{7056}$ = _____

b. $\sqrt{33124}$ = _____

c. $\sqrt{842724}$ = _____

Q4. Find the smallest and the greatest 4-digit number which is a perfect square.

a. Smallest 4-digit number which is a perfect square : _____

b. Greatest 4-digit number which is a perfect square : _____

Q5. Find the least number which is divisible by 24, 14 and 16, and is a perfect square also.

Answer: _____

Q6. Simplify:

a. $\sqrt{\frac{324}{9}} + \sqrt{256} - \sqrt{1936}$

Answer: _____

b. $\left[(-21)^2 \times \sqrt{\frac{144}{9}}\right] + 6^2$

Answer: _____

Q7. 15,376 packets of refreshments were distributed to the participants of a television reality show. If each box contained the same number of packets as there were number of boxes, find the number of refreshment packets in each box.

Answer: _____

Q8. Find the square root of the following:

a. 453.69 : _____

b. 152.7696 : _____

Q9. Find the product, without actual multiplication, and fill in the blanks:

a. If $(16.1)^2 = 259.21$; then $(1.61)^2$ = _____ .

b. If $(213)^2 = 45369$; then $(21.3)^2$ = _____ .

c. If $(0.76)^2 = 0.5776$; then $(7.6)^2$ = _____ .

Q10. Find the value of $\sqrt{3}$ upto 3 decimal places. Simplify and find the value of $\sqrt{\frac{2-\sqrt{3}}{2+\sqrt{3}}}$:

$\sqrt{3}$ = _____

$\sqrt{\frac{2-\sqrt{3}}{2+\sqrt{3}}}$ = _____

Answers

1. a. Odd; b. Even; c. Even; d. Odd
2. a. $48600 \div 6 = 8100$ is a perfect square;
   b. $15120 \div 105 = 144$ is a perfect square
3. a. 84; b. 182; c. 918
4. a. 1024; b. 9801
5. 7056
6. a. –22; b. 1800
7. 124 refreshment packets
8. a. 21.3 ; b. 12.36
9. a. 2.5921; b. 453.69; c. 57.76
10. $\sqrt{3} = 1.732$

    $\sqrt{\frac{2-\sqrt{3}}{2+\sqrt{3}}} = 0.268$