Name:

Exam Style Questions

Square numbers
Square roots

Corbettmaths

Ensure you have: Pencil, pen, ruler, protractor, pair of compasses and eraser

You may use tracing paper if needed

Guidance

1. Read each question carefully before you begin answering it.
2. Don't spend too long on one question.
3. Attempt every question.
4. Check your answers seem right.
5. Always show your workings

Revision for this topic

www.corbettmaths.com/contents

Video 226
Video 227
Video 228

1. From the list of numbers

2 6 11 14 16 18 24 25

(a) write down the square numbers

16 and 25

(2)

(b) write down the square root of 36.

6

(1)

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2. Write down the value of

(a) 3^2

9

(1)

(b) seven squared

49

(1)

(c) 8^2

64

(1)

(d) ten squared

100

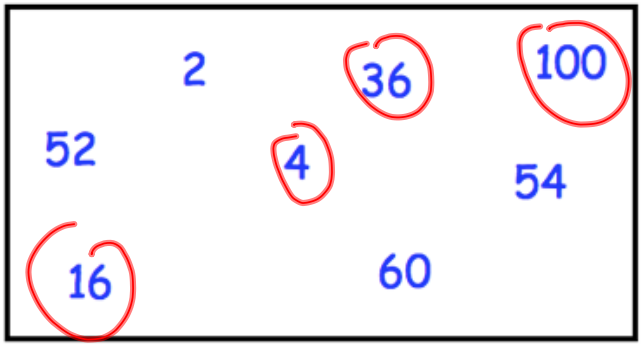
(1)

(e) 12^2

144

(1)

3.



Circle all the square numbers.

(2)

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4. Write down the value of

(a) $\sqrt{81}$

9

(1)

(b) $\sqrt{1}$

1

(1)

(c) $\sqrt{121}$

11

(1)

(d) $\sqrt{0}$

0

(1)

5. Calculate 2.4^2

5.76

.....

(1)

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6. Calculate $\sqrt{62.41}$

7.9

.....

(1)

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7. Megan says "when you square root a number, the answer is always smaller."

Show she is wrong.

$\sqrt{0} = 0$

$\sqrt{0.25} = 0.5$

$\sqrt{0.09} = 0.3$

$\sqrt{1} = 1$ etc.

(2)

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8. Write down a square number that is greater than 30 and less than 50.

36 or 49

.....

(1)

9. Arrange these in order, starting with the smallest.

$\sqrt{64} = 8$
$\sqrt{81} = 9$

3^2	$\sqrt{100}$	4^2	$\sqrt{80}$
9	10	16	$\approx 8.9\ldots$

$\sqrt{80}$, 3^2, $\sqrt{100}$, 4^2

(2)

10. William is thinking of two numbers.
Both numbers are square numbers greater than 1.
The sum of the numbers is 100.

Write down the two numbers.

$36 + 64$

36 and 64

(2)

11. Mr Jenkins is tiling a square floor.
He uses 196 square tiles.

Work out how many tiles are in each row.

$\sqrt{196} = 14$

14

(2)

12. Ben says

"the difference between two consecutive square numbers is always odd."

Is Ben correct?
You must show your workings.

$5^2 - 4^2 = 25 - 16 = 9$

odd x odd = odd

even x even = even

odd - even = odd

even - odd = odd.

yes, he is correct.

(2)