3.6 Scale Drawings and Maps: 1-hour Pack

Calculators not allowed · about 60 minutes

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 On a map, 1 cm represents 0.5 km. A road is 6.5 cm long on the map. Work out the real length of the road in kilometres.

(2)

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2 A map has a scale of 1 : 1000. A lake is 4.9 cm wide on the map. Work out its real width in metres.

(3)

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3 Write the ratio 10 : 58 in the form 1 : n.

(2)

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4 On a map, 1 cm represents 0.02 km. A road is 2.6 cm long on the map. Work out the real length of the road in kilometres.

(2)

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5 Write the ratio 20 : 48 in the form 1 : n.

(2)

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6 On a map, 1 cm represents 0.05 km. A road is 3 cm long on the map. Work out the real length of the road in kilometres.

(2)

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7 A map has a scale of 1 : 1000. Two towns are 3.7 cm apart on the map. Work out the real distance between the towns. Give your answer in m.

(2)

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8 On a map, 1 cm represents 1 km. A road is 9.1 cm long on the map. Work out the real length of the road in kilometres.

(2)

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9 A scale drawing uses a scale of 5 cm to 20 m. A wall is 4 cm long on the drawing. Work out the real length of the wall.

(2)

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10 A map has a scale of 1 : 25000. A path is 1575 m long in real life. How long is it on the map in centimetres?

(3)

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11 On a map, 1 cm represents 0.5 km. A road is 2.6 cm long on the map. Work out the real length of the road in kilometres.

(2)

---

12 Write the ratio 25 : 32 in the form 1 : n.

(2)

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13 A road measures 13 cm on a map and is 6.5 km in reality. Work out the map scale as a ratio in the form 1:n.

(2)

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14 A map has a scale of 1 : 50000. Two towns are 7.7 cm apart on the map. Work out the real distance between the towns. Give your answer in km.

(2)

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15 A map has a scale of 1 : 25000. A path is 850 m long in real life. How long is it on the map in centimetres?

(3)

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16 A scale drawing uses a scale of 1 cm to 5 m. A building is 110 m tall. How tall is the building on the drawing?

(2)

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17 On a map, 1 cm represents 0.1 km. A road is 2.1 cm long on the map. Work out the real length of the road in kilometres.

(2)

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18 The ratio of the length of a model to the length of the real plane is 10 : 34. Write this ratio in the form 1 : n.

(2)

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19 A scale drawing uses a scale of 1 cm to 4 m. Write the scale in the form 1 : n.

(2)

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20 A plan of a room uses a scale of 1 : 20. The room is 4 m long in real life. How long is the room on the plan? Give your answer in centimetres.

(2)

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21 On a map with scale 1:40 000 the distance between two villages is 3.6 cm. Calculate the real distance in kilometres.

(2)

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22 On a map with scale 1:5000, what real distance does 8 cm represent? Give your answer in metres.

(1)

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Mark scheme · 3.6 Scale Drawings and Maps: 1-hour Pack

Question 1

6.5 x 0.5	M1
3.25 km cao	A1

Answer: **3.25 km**

Question 2

4.9 x 1000	M1
converts cm to m by ÷ 100	M1
49 m cao	A1

Answer: **49 m**

Question 3

divides both parts by 10	M1
1 : 5.8 cao	A1

Answer: **1 : 5.8**

Question 4

2.6 x 0.02	M1
0.052 km cao	A1

Answer: **0.052 km**

Question 5

divides both parts by 20	M1
1 : 2.4 cao	A1

Answer: **1 : 2.4**

Question 6

3 x 0.05	M1
0.15 km cao	A1

Answer: **0.15 km**

Question 7

3.7 x 1000	M1
37 m cao	A1

Answer: **37 m**

Question 8

9.1 x 1	M1
9.1 km cao	A1

Answer: **9.1 km**

Question 9

4 ÷ 5 x 20 or 4 x 4	M1
16 m cao	A1

Answer: **16 m**

Question 10

1575 x 100 = 157500 cm	M1
÷ 25000	M1
6.3 cm cao	A1

Answer: **6.3 cm**

Question 11

2.6 x 0.5	M1
1.3 km cao	A1

Answer: **1.3 km**

Question 12

divides both parts by 25	M1
1 : 1.28 cao	A1

Answer: **1 : 1.28**

Question 13

convert 6.5 km to cm = 650 000 cm and form ratio 13:650000 or divide both sides by 13	M1
1:50 000 cao	A1

Answer: **1:50 000**

Question 14

7.7 x 50000	M1
3.85 km cao	A1

Answer: **3.85 km**

Question 15

850 x 100 = 85000 cm	M1
÷ 25000	M1
3.4 cm cao	A1

Answer: **3.4 cm**

Question 16

110 ÷ 5 x 1	M1
22 cm cao	A1

Answer: **22 cm**

Question 17

2.1 x 0.1	M1
0.21 km cao	A1

Answer: **0.21 km**

Question 18

34 ÷ 10	M1
1 : 3.4 cao	A1

Answer: **1 : 3.4**

Question 19

4 m = 400 cm	M1
1 : 400 cao	A1

Answer: **1 : 400**

Question 20

4 x 100 = 400 cm, then ÷ 20	M1
20 cm cao	A1

Answer: **20 cm**

Question 21

3.6 cm x 40 000 = 144 000 cm = 1.44 km	M1
1.44 km cao	A1

Answer: **1.44 km**

Question 22

400 m cao	B1

Answer: **400 m**

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