



**BlackStone**  
T U T O R S

**Past Paper Answers & Explanations**

# **Hampton Court House Maths Sample**

## Hampton Court House Maths Sample

**1**

- a)  $124 + 37 = 161$
- b)  $4 * 8 = 32$
- c)  $100 - 48 = 52$
- d)  $39 / -3 = -13$
- 3)  $502 * 10 = 5020$
- f) Half of 74 = 37
- g)  $-263 + 984 = 721$
- h)  $-705 - 342 = -1047$
- i)  $3 + 2 * 5 = 13$
- j)  $4.5 * 10 = 45$

**2**

18738

$$694 * 27 = 18738$$

**3**

- a) e.g. 28
- ii) 22
- iii) Either 13 or 19
- iv)) Either 16 or 25

b) 7,4

*Subtract 3 each time*

c) -2

7,4,1,-2

**4**

a)  $\frac{1}{4}$

$$\frac{2}{8} = \frac{1}{4}$$

b) 75%

$$\frac{6}{8} = 75\%$$

**5**

$$2 * 3 * 17$$

$$\text{As } 2 * 51$$

**6**

210

$$2 * 3 * 5 * 7$$

**7**

$$30y - 3x$$
$$3x - 6x + 7y + 23y$$
$$= -3x + 30y$$

**8**

a) 22

$$17 + 5 = 22$$

b) 18

$$x/2 = 9$$

$$X = 18$$

**9**

a) 91

$$180 - 52 - 37$$

b) 111

$$360 - 134 - 115$$

**10**

a) 65 mins

b) 10:30 as it will take more than two minutes to get from the train station to her meeting.

**11**

|       | Boys | Girls | Total |
|-------|------|-------|-------|
| 6A    | 14   | 16    | 30    |
| 6B    | 12   | 6     | 18    |
| Total | 26   | 22    | 48    |

b) 8/11

c)  $\frac{3}{8}$

$$18/48$$

d)  $\frac{1}{3}$

e) 4

$$22 + x = 26$$

$$X = 4$$

**12**

a) 20

$$20 - 0 = 20$$

b) 7.5

*Halfway between 5 and 10 = 7.5*

c) 8.5

$$119 / 14 = 8.5$$

*Sum of all values / number of scores*

d) 14

*Most common value*

e) The median is unchanged as the order of numbers remains the same. The mean is altered as the total sum of the numbers changes.

**13**

a) 18/5

b) 7/3

**14**

a)  $\frac{5}{8}$

$$2/8 + 3/8 = 5/8$$

b) -9/28

$$12/28 - 21/28 = -9/28$$

**15**

9 days

$$6 / (\frac{2}{3})$$

**16**

a) 425,121

$$1275363/3 = 425151$$

b) 425,000

c) 430,000

**17**

Perimeter 54cm, Area 10cm<sup>2</sup>

Perimeter is 15+15+24

Area is  $\frac{1}{2} * b * h$

**18**

Perimeter = 46cm

*Unknown lengths are 1.5cm, 2cm*

Area = 108cm<sup>2</sup>

$$= 120 - 4 * (2*1.5)$$

**19**

86cm<sup>2</sup>

*Square is 20\*20*

*Circle is Pi \* 10\*10*

*400 - 314 = 86*