**Over-lap Questions June 2019 Paper 1**

**22/1** There are only blue cubes, red cubes and yellow cubes in a box.

 The table shows the probability of taking at random a blue cube from the box.

|  |  |  |  |
| --- | --- | --- | --- |
| **Colour** | blue | red | yellow |
| **Probability** | 0.2 |  |  |

 The number of red cubes in the box is the same as the number of yellow cubes in the box.

 (*a*)Complete the table.

**(2)**

 There are 12 blue cubes in the box.

 (*b*)Work out the total number of cubes in the box.

.......................................................

**(2)**

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**24/3** Find the highest common factor (HCF) of 72 and 90

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**(2)**

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**23/2** Deon needs 50 g of sugar to make 15 biscuits.

 She also needs three times as much flour as sugar

 two times as much butter as sugar

 Deon is going to make 60 biscuits.

 (*a*)Work out the amount of flour she needs.

....................................................... g

**(3)**

 Deon has to buy all the butter she needs to make 60 biscuits.

 She buys the butter in 250 g packs.

 (*b*)How many packs of butter does Deon need to buy?

.......................................................

**(2)**

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**25/4** The diagram shows the plan, front elevation and

 side elevation of a solid shape, drawnon a centimetre grid.

 In the space below, draw a sketch of the solid shape.

 Give the dimensions of the solid on your sketch.

**(2)**

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**26/5**

Shape **A** can be transformed to shape **B**

by a reflection in the *x*-axis followed by a translation

Find the value of *c* and the value of *d*.

*c* = .............................................

*d* = ..............................................

**(3)**

**27/6** A shop sells packs of black pens, packs of red pens and packs of green pens.

 There are 2 pens in each pack of black pens

 5 pens in each pack of red pens

 6 pens in each pack of green pens

 On Monday,

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| number of packsof black pens sold | : | number of packsof red pens sold | : | number of packsof green pens sold | = 7 : 3 : 4 |

 A total of 212 pens were sold.

 Work out the number of green pens sold.

.......................................................

**(4)**

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**28/7** Here are two rectangles.

*QR* = 10 cm

 *BC* = *PQ*

 The perimeter of *ABCD* is 26 cm

 The area of *PQRS* is 45 cm2

 Find the length of *AB*.

....................................................... cm

**(4)**

**TOTAL FOR PAPER IS 24 MARKS**