ACE Examination 2016

Year 7 NAPLAN Examination

Worked solutions and marking guidelines

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| **Non-Calculator** | | | |
|  | **Answer** | **Solution** | |
| 1 |  | Estimate: Dress - $60, Jumper - $40, Shoes - $100 | |
| 2 | Decrease by 0.25 |  | |
| 3 | 5 013 084 |  | |
| 4 | 12,040 |  | |
| 5 | Triangular pyramid | 3D object with 4 faces, 6 edges and 4 vertices. | |
| 6 |  |  | |
| 7 | 16 m |  | |
| 8 |  |  |  |
| 9 | 16 | Pattern: 1, 4, 7, 10, 13, **16** | |
| 10 | 6 | This solid has 6 faces. | |
| 11 | 25% |  | |
| 12 | (2, 0) |  | |
| 13 | 28˚ | (Angle sum of a triangle is 180º) | |
| 14 | 0.80 m3 | Let the small cube have a side length of *x*. Hence .  Large cube has a side length of 2*x.* Hence .  Volume of the large cube is 8 times the small cube. | |
| 15 |  |  | |

|  |  |  |
| --- | --- | --- |
| 16 | 3 hours 5 mins | Current time is 10.10 am |
| 17 | 10 m |  |
| 18 | 20.645 |  |
| 19 |  |  |
| 20 | North-West | Travelling Oxford St towards Oxford Square is in the north-west direction. |
| 21 | $135 |  |
| 22 | One axis of symmetry |  |
| 23 | 2nd November | Meetings in October - 5 Oct, 12 Oct, 19 Oct, 26 Oct,  Then 27, 28, 29, 30, 31, 1, 2  2nd Nov |
| 24 |  | This container has 150 mL of water.  The other containers are less than 50 mL. |
| 25 | 135 m | Convert each length to metres.  0.1305 km = 130.5 m 135 m  1350 cm = 13.50 m 13 050 mm = 13.05 m |
| 26 |  |  |
| 27 |  |  |
| 28 | 200 m | (square base) |
| 29 | Mode | Mean = 73 ÷ 7 =10.4, Median is 11, Mode is 5,  Range = 18 – 5 = 13 |
| 30 | 9 | Each additional table seats another 4 people  8 tables can seat 34 people  9 tables can seat 38 people |
| 31 | 48 cm | Let son’s height be *x*.  William’s height is  and daughter’s height is  Daughter’s height  Therefore son’s height is 48 cm |
| 32 | 75° |  |

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| **Calculator** | | |
|  | **Answer** | **Solution** |
| 1 |  | Convert money to the same units.  Lollies cost 75 cents or $0.75. |
| 2 | Tens of thousands | 3 2**8**6 500 |
| 3 | 720 m | Ran for 2 minutes or 120 seconds. |
| 4 | 5 | Pentagon has 5 sides. |
| 5 | House prices are related to their distance from the city. | Scatter plot indicates house prices decrease in value the further the house is from the city. |
| 6 | 21.85 cm2 |  |
| 7 | 7 692 000 | (round up to the nearest thousand) |
| 8 | 1376 m |  |
| 9 |  |  |
| 10 | 65˚ | Lower scale between 60˚ and 70˚ |
| 11 | $35.85 |  |
| 12 | 6 |  |
| 13 | 5300 grams |  |
| 14 | Prism |  |
| 15 |  |  |
| 16 | 12 |  |
| 17 | 121° | Base angle of the isosceles triangle is |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 18 | l min 40 s |  | | |
| 19 | Hexagon | There are 3 pairs of opposite sides in a hexagon that are parallel. | |  |
| 20 |  | Cube has 12 edges and 6 faces. | | |
| 21 | 8888 | Multiple of both 8 and 11 is divisible by both 8 and 11. | | |
| 22 | 70 m2 | Each square represents 2 m2. | | |
| 23 | an acute angle | Obtuse angle is between 90º and 180º  Since the angles are not equal then subtracting two obtuse angles must result in an angle between 0º and 90º (acute) | | |
| 24 | 25% |  | | |
| 25 | Fox | Brown: , Fox  (over 21 kg)  Kent , Tran | | |
| 26 |  | 0.4 = 0.40, 0.05, 60% = 0.60, | | |
| 27 | 60 |  |  | |
| 28 |  |  | | |
| 29 | 50 |  | | |
| 30 | 108 |  | | |
| 31 | $3.60 | Let the cost of a coffee be *x.* Hence the cakes are  (Total cost)  Cost of a coffee is $3.60 | | |
| 32 | $338 |  | | |