MATHS

Number & Algebra

Solving everyday addition problems

Use the number line at the right to answer the following questions.

If the answer is in between two points, write both points as the

Example: if the answer is 30, write C/D.

(1)	What	point	is	at	15 +	90?	
_							-

- (2) What point is at 15 + 35? ___ **3** What point is at 125 - 20?
- 4 What point is at 15 + 30 + 45?
- **(5)** What point is at 140 45?
- 6 What point is at 75 35 + 25 5?
- 7 What point is at \$55 + \$20 + \$45 - \$20?
- (8) What point is at 155 km 35 km - 40 km + 75 km? ____
- (9) What point is at 0 mL + 40 mL -25 mL + 65 mL - 60 mL? _
- (10) What point is 35 × 2? _____
- 11) What point is at 15 × 4?
- (12) What point is halfway between 60 and 100?
- (13) What point is halfway between 45 and 95?
- (14) What point is a third of the way between 20 and 80?
- (15) What point is a third of the way between 75 and 90? _

Score 2 points for











130

150

Statistics & Probability

Investigating likely and surprising outcomes

Circle the correct answers.

- (1) Which of these would be the most surprising event?
 - a a dog crossing a road
 - **b** a car stopped at a traffic light
 - c an elephant in your garden
 - d an emu at the zoo

- 2 Which of these is a likely event?
 - **a** a horse wearing a tutu
 - **b** a traffic light turning green
 - c a giraffe climbing a ladder
 - d a person chopping down a flagpole
- (3) Which of these would be the most surprising event?
 - **a** a horse stopped at a traffic light
 - **b** a traffic light turning red
 - c a giraffe wearing an Easter bonnet
 - d a person eating rabbit stew
- (4) Which of these would be the most likely event?
 - **a** a police officer chasing a criminal
 - **b** a doctor seeing a patient
 - c a firefighter visiting the school
 - d a fashion model eating two large pizzas
- Write the numbers I to 4 to rank the events in question I from most likely (I) to least likely (4).
- Write the numbers I to 4 to rank the events in question 2 from most surprising (1) to least surprising (4).
- (7) Write the numbers I to 4 to rank the events in question 3 from common (1) to unusual (4).
- Write the numbers I to 4 to rank the events in question 4 from rarely (1) to everyday (4).

Use this spinner to answer the following questions.

Orani spun the spinner 120 times and recorded her results.

- Which two colours were most likely spun the same number of times?
- Which colour was most likely spun forty times?



(1) Which two colours combined were most likely spun half the times? (12) Was red not likely, likely or positively spun 40 times? /24 score 2 points for Measurement & Geometry Equivalent measurements Are these correct? Write Y (yes) or N (no). 125 cm = 12.5 m(2) | 000 000 q = | t (3) 10 001 m = 100.01 km (4) 2809 mm = 28.09 m (5) 9001 mm = 900.1 cm 6) 9001 mm = 90.01 cm 125 cm = 1.25 m5 cm = 50 mm9) 5 cm = 500 mm (10) 202 m = 20 200 cm (11) 202 m = 2020 cm(12) | 000 000 g = 20 t 100 km = 10 000 m(14) 602 mL = 0.602 L 15 10 000 kg = 1 t 16 | 1100 L = 1.1 kL 17 4004 mg = 40.04 g 18 | 1100 L = 0.11 kL 19 4004 mg = 4.004 g **20** 6543 g = 6.543 kg (a) 6543 g = 654.3 kg**2** 0.007 kg = 7 g **3** 0.007 kg = 70 g 24 10 000 kg = 10 t **25** 1000 kg = 10 t **26** | t = 1000 kg

Problem Solving

20 +

40

50 -

70 -

80

90

100

110

120

130-140 N

150 0

160+

Use the number line at the right to answer the following questions.

- 1) Phillip lived a distance in kilometres from Aiko that is equal to the space between points G and E. How far was that?
- (2) Aiko lived a distance in kilometres from Haima that is equal to the space between points P and I. How far was that?
- **3** What is the difference in kilometres between Phillip's distance from Aiko and Haima's distance from Aiko?
- (4) If Aiko walked only half the distance between her house and Phillip's, what two points could she end up on if she started at point D?

Use this list of acids to answer the following questions. Write the letters of the acids.

A 105 mL maleic acid B 250 mL fumaric acid C 425 mL hydrofluoric acid D 150 mL nicotinic acid E 75 mL adipic acid F 280 mL tannic acid

- (5) Which three acids combined have a volume of 680 mL?
- **6** Of which acid is there a quarter of a litre?
- 7) Of which acid is there a volume that is half as much as the volume of nicotinic acid?
- (8) Which two acids combined have a volume of half a litre?
- (9) Which two acids combined have a volume of 30 mL more than half a litre?
- 10 If a chemist combined all the maleic acid and adipic acid and a third of the mixture evaporated, how much would be left?

/52