

Year 7

Directed Number



Name _____

- 1 Use $<$ or $>$ to compare. 1 mark for 2 correct.

$$-8 < 2$$

$$-27 > -43$$

$$0 > -15$$

2 marks

- 2 The table shows the temperature in Warsaw at different times during the day.

6am	10am	2pm	6pm	10pm
-5°C	-3°C	0°C	1°C	2°C

What is the difference in temperature between 10am and 10pm?

_____ 5°C

1 mark

The temperature drops 6°C between 10pm and 6am the next day.

What is the temperature at 6am the next day?

_____ -4°C

1 mark

- 3 Calculate:

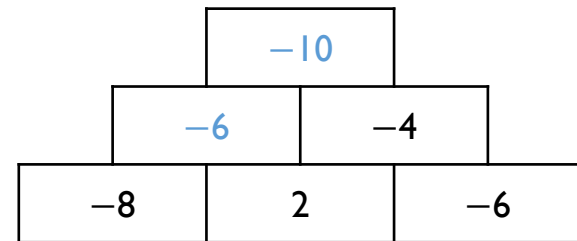
$$-5 - 8 = \underline{-13}$$

$$3 - (-2) = \underline{5}$$

2 marks

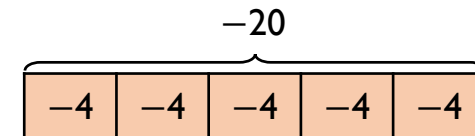
- 4 Here is an addition pyramid. The number in each box is the sum of the two numbers below it.

Complete the addition pyramid.



2 marks

- 5 Complete the fact family for the bar model.



$$5 \times -4 = -20 \quad -20 \div 5 = \underline{-4}$$

$$\underline{-4} \times \underline{5} = \underline{-20} \quad \underline{-20} \div \underline{-4} = \underline{5}$$

2 marks

- 6 $a = -3$ and $b = 10$
Find the value of the expressions.

$$ab = \underline{-30}$$

$$a^2 - b = \underline{-1}$$

2 marks

- 7 Solve the equations.

$$3a + 9 = 3$$

1 mark for $3a = -6$

$$\underline{a = -2}$$

2 marks

$$-6 = \frac{h}{3} - 7$$

1 mark for $\frac{h}{3} = 1$

$$\underline{h = 3}$$

2 marks

- 8 Tick the expressions that are equal to 10

1 mark for 2 correct.

$$15 - 8 + 3$$

$$\sqrt{16} + 2$$

$$-10 + 5 \times 4$$

$$6^3 - 8$$

2 marks

- 9 Ricky says that $\sqrt{169} = 13$

H

Shanee thinks this is not the only answer.
Why might Shanee think this?

-13 is also a square root of 169

1 mark

- 10 Evaluate.

H

$$-3^3 = \underline{-27}$$

1 mark

Total marks