Year 7

Directed Number

Name _____

1 Use < or > to compare.

−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?

_____ °C

1 mark

The temperature drops 6°C between 10pm and 6am the next day.
What is the temperature at 6am the next day?

_____ °C

1 mark

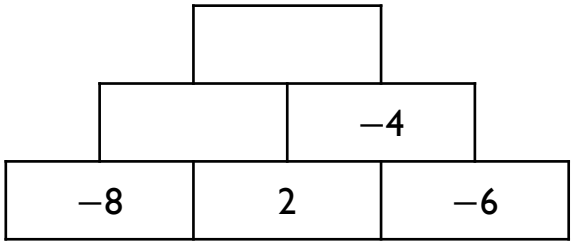
3 Calculate:

$-5 - 8 =$ _____

$3 - (-2) =$ _____

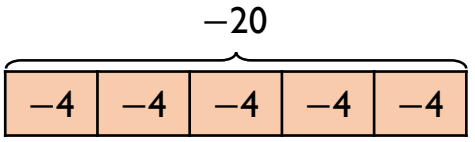
2 marks

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.



$5 \times -4 = -20$ $-20 \div 5=$ ____

____ × ____ = ____ ____ ÷ ____ = ____

2 marks

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

$ab =$ _____

$a^2 - b =$ _____

2 marks

7 Solve the equations.

$3a + 9 = 3$

$a =$ _____

2 marks

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

$h =$ _____

2 marks

8 Tick the expressions that are equal to 10

$15 - 8 + 3$	☐	$\sqrt{16} + 2$	☐
$-10 + 5 \times 4$	☐	$6^3 - 8$	☐

2 marks

9 H

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

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

1 mark

10 H

Evaluate.

$-3^3 =$ ☐

1 mark

Total marks ☐