

Negative Numbers & Integers: Hard Practice Paper 7 Answers

Q#	Answer	Explanation
1	A	A negative multiplied by a positive gives a negative answer, and $11 \times 8 = 88$, so the answer is -88.
2	A	A positive divided by a negative gives a negative answer, and $144 \div 12 = 12$, so the answer is -12.
3	A	A negative squared is positive, so $(-6)^2$ is $-6 \times (-6)$, giving 36. Then a positive divided by a negative is negative, and $36 \div 4 = 9$, so the answer is -9.
4	A	The under-par rounds come to $2 + 4 + 1 = 7$ below par, and the one over-par round is 5 above. Starting 5 above and dropping 7 finishes 2 below par.
5	C	Each term is 7 more than the one before, and the 9th term is eight steps after the first, so $8 \times 7 = 56$ has been added to -38. Counting 56 up from -38 passes zero and reaches 18.
6	D	First $a \div b$ is $-12 \div (-3)$, which gives 4 because two negatives make a positive. Subtracting b means subtracting -3, which is the same as adding, so $4 + 3 = 7$.
7	A	Work each one out: $-40 \div 2$ gives -20, $-13 - 12$ gives -25, $-9 + (-15)$ gives -24 and $3 \times (-9)$ gives -27. The lowest of them all is -6×5 , which gives -30.
8	B	Take 4 from both sides: $18 - 4 = 14$, so $-2x$ is 14. Dividing 14 by -2 gives -7. Check: $4 - 2 \times (-7)$ is $4 + 14$, which gives 18.
9	B	The ground is at -30 m, and the balloon is 250 m above that. Counting 250 up from -30 passes sea level after 30 m and rises 220 m further, so the balloon is at 220 m.
10	B	The difference is the highest reading take away the lowest. Monday gives 10 degrees, Tuesday 12, Wednesday 11, Thursday 10 and Friday 9, so Tuesday has the greatest difference.

11	C	Four numbers with a mean of -3 have a total of $4 \times (-3)$, which is -12 . The three given numbers come to 13 below zero and 2 above, making -11 , so the fourth number must take -11 one step further down, to -1 .
12	E	The first four all come to -8 . But $-3 - 6$ drops one step further, to -9 .
13	A	P is at $(-4, -3)$. Moving right adds to the x-coordinate, and counting 7 right from -4 reaches 3. Moving up adds to the y-coordinate, and counting 5 up from -3 reaches 2. The new position is $(3, 2)$.
14	C	After 6 weeks it has paid in $6 \times 180 = 1,080$ pounds, which still leaves the balance below zero at $-\text{£}170$. After 7 weeks it has paid in $7 \times 180 = 1,260$ pounds, which is $\text{£}10$ more than the debt, so the balance is above zero for the first time.
15	B	The bracket comes first, and counting 9 up from -4 gives 5. Then -3×5 gives -15 , because a negative times a positive is negative.