

# Winter Sports



twinkl

# Aim

- I can solve problems involving converting between minutes and seconds.

# Success Criteria

- I can convert from minutes to seconds.
- I can convert from seconds to minutes.
- I can order timed events.
- I can solve a problem involving timed events, converting from one unit of time to another.

# Combined Downhill and Slalom

Competitor	Time For Slalom
Andy	1 minute 41 seconds
Bertrand	2 minutes 3 seconds
Christophe	1 minute 20 seconds
David	2 minutes 22 seconds
Eric	2 minutes 21 seconds
Frederic	1 minute 50 seconds

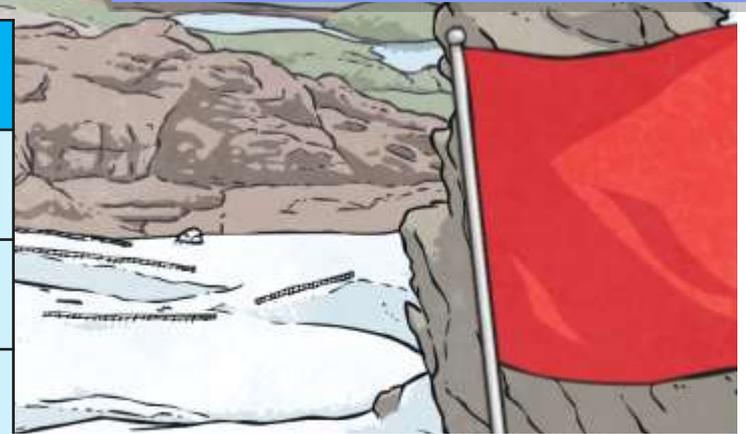
Order the competitors from fastest to slowest.

Here are some of the competitors' times for the downhill race.

# Combined Downhill and Slalom

Here are the competitors' times for the slalom race.

Competitor	Time For Slalom
Andy	56.6 seconds
Bertrand	46 seconds
Christophe	56.5 seconds
David	42.9 seconds
Eric	47.9 seconds
Frederic	57.1 seconds



Order the competitors from fastest to slowest.

First look at the whole number.  
If there are 2 whole numbers the same, then look at the digit after the decimal point.



# Combined Downhill and Slalom

Competitor	Time For Downhill	Time For Slalom	Joint Times
Andy	1 minute 41 seconds	56.6 seconds	$60 + 41 + 56.6 = 157.6$ seconds
Bertrand	2 minutes 3 seconds	46 seconds	
Christophe	1 minute 20 seconds	56.5 seconds	
David	2 minutes 22 seconds	42.9 seconds	
Eric	2 minutes 21 seconds	47.9 seconds	
Frederic	1 minute 50 seconds	57.1 seconds	

# Combined Downhill and Slalom

Competitor	Joint Times (Seconds)	Joint Times (Minutes and Seconds)
Andy	157.6 seconds	2 minutes 37.6 seconds
Bertrand	169 seconds	
Christophe	136.8 seconds	
David	184.9 seconds	
Eric	188.9 seconds	
Frederic	167.1 seconds	

Now order the competitors from fastest to slowest.





1. Here are some competitors' times for a downhill ski race. Change the times to seconds. The first one has been done for you.

Competitor	Time For Downhill (Minutes and Seconds)	Time For Downhill (Seconds)
Alex	1 minute 35 seconds	$60 + 35 = 95$ seconds
Billy	2 minutes 9 seconds	
Carlos	1 minute 36 seconds	
Dean	1 minute 32 seconds	
Ernest	2 minutes 30 seconds	

2. Order the competitors from fastest to slowest.

fastest				slowest

3.

a. How much faster was Billy than Ernest?

\_\_\_\_\_

b. How much slower was Alex than Dean?

\_\_\_\_\_

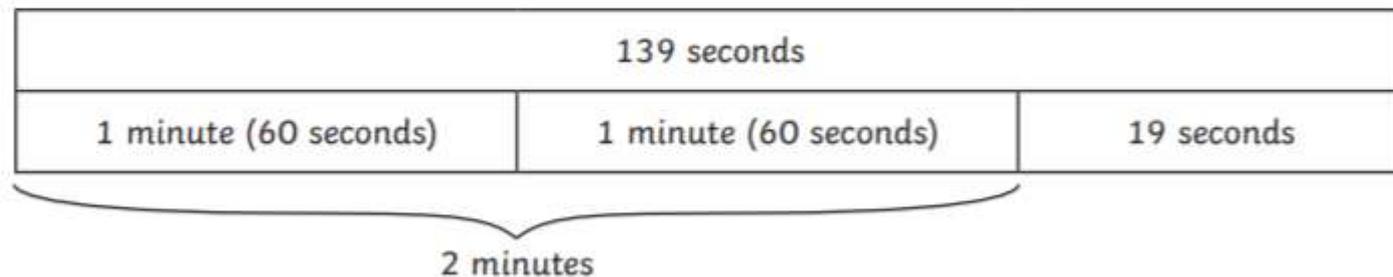
4. Here are the competitors' times for the slalom. Add their times to the table and calculate the overall time in seconds. The first one has been done for you.

Alex: 44 seconds   Billy: 39 seconds   Carlos: 47 seconds   Dean: 54 seconds   Ernest: 35 seconds

Competitor	Time For Downhill	Time For Slalom	Time For Downhill
Alex	1 minute 35 seconds	44 seconds	$60 + 35 + 44 = 139$ seconds
Billy	2 minutes 9 seconds		
Carlos	1 minute 36 seconds		
Dean	1 minute 32 seconds		
Ernest	2 minutes 30 seconds		

5. Now, convert the combined times from seconds to minutes and seconds. Use a bar model to help. The first one has been done for you.

Alex: 2 minutes 19 seconds



Billy:

Carlos:

Dean:

Ernest:



1. Here are some competitors' times for a downhill ski race. Change the times to seconds. The first one has been done for you.

Competitor	Time For Downhill (Minutes and Seconds)	Time For Downhill (Seconds)
Agneta	1 minute 28 seconds	$60 + 28 = 88$ seconds
Barbara	2 minutes 9 seconds	
Ceri	1 minute 47 seconds	
Davina	2 minute 18 seconds	
Eleanor	1 minutes 51 seconds	
Fawzia	1 minutes 30 seconds	

2. Order the competitors from slowest to fastest.

slowest					fastest

3. Whose time for the slalom was closest to 2 minutes? It may be more than one person.  
Show how you know.

4. Here are the competitors' times for the slalom. Add the times to the table and calculate the overall time in seconds. The first one has been done for you.

Agneta: 44.2 seconds   Barbara: 37.8 seconds   Ceri: 43.2 seconds   Davina: 51 seconds  
Eleanor: 43.8 seconds   Fawzia: 42.1 seconds

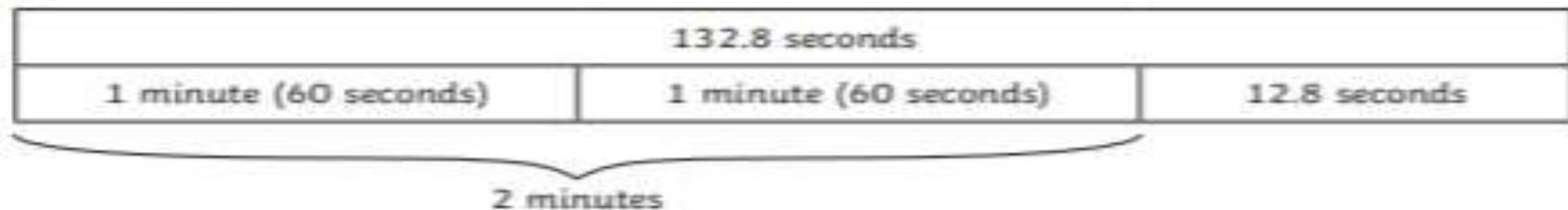
Competitor	Time For Downhill	Time For Slalom	Time For Downhill
Agneta	1 minute 28 seconds	44.2 seconds	$60 + 28 + 44.2$ $= 132.2$ seconds
Barbara	2 minutes 9 seconds		
Ceri	1 minute 47 seconds		
Davina	2 minutes 18 seconds		
Eleanor	1 minute 51 seconds		
Fawzia	1 minute 30 seconds		

5. Say whether the following statements are true or false.

- |   | True                     | False                    |
|---|--------------------------|--------------------------|
| a. The winner's combined time was over a minute faster than the skier who finished in last place. | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Barbara had the biggest difference in her time for the two races.                              | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Fawazia was faster in Agneta in both events.   | <input type="checkbox"/> | <input type="checkbox"/> |

6. Convert the combined times to minutes and seconds for the named competitors. Use a bar model to help. One has been done for you.

Agneta: 2 minutes 12.8 seconds



Barbara:

Ceri:

Davina:



1. Here are some competitors' times for a downhill ski race. Change the times to seconds. The first one has been done for you.

Competitor	Time For Downhill (Minutes and Seconds)	Time For Downhill (Seconds)
Arthur	1 minute 24.6 seconds	$60 + 24.6 = 84.6$ seconds
Bobby	1 minute 59.2 seconds	
Carol	2 minutes 37.4 seconds	
Daphne	1 minute 28 seconds	
Eric	2 minutes 6.3 seconds	
Felicity	1 minute 27.1 seconds	

2. Order the competitors from slowest to fastest.

slowest					fastest

3.

a. How much faster was Arthur than Bobby?

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b. How much slower was Eric than Arthur?

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4. Here are the competitors' times for the slalom. Add the times to the table and calculate the overall time in seconds. The first one has been done for you.

Arthur: 43.2 seconds   Bobby: 46.8 seconds   Carol: 24.9 seconds   Daphne: 58.4 seconds  
Eric: 45 seconds   Felicity: 34.4 seconds

Competitor	Time For Downhill	Time For Slalom	Time For Downhill
Arthur	1 minute 24.6 seconds	43.2 seconds	$60 + 24.6 + 43.2$ $= 127.8$ seconds
Bobby	1 minute 59.2 seconds		
Carol	2 minutes 37.4 seconds		
Daphne	1 minute 28 seconds		
Eric	2 minutes 6.3 seconds		
Felicity	1 minute 27.1 seconds		

5. Say whether the following statements are true or false.

- |  | True                     | False                    |
|--|--------------------------|--------------------------|
| a. Arthur was more than half a minute faster than Daphne in the combined event.  | <input type="checkbox"/> | <input type="checkbox"/> |
| b. The fastest slalom skier won the combined event.                              | <input type="checkbox"/> | <input type="checkbox"/> |
| c. The person who came second place overall beat the winner in one of the races. | <input type="checkbox"/> | <input type="checkbox"/> |



# Penalties

In a grand slalom race, if the competitor misses out one of the flags they have a penalty added to their time of 5 seconds. Here are the times of the competitors and how many flags they missed. Order the competitors from fastest to slowest.



# Penalties

Competitor	Time For Slalom	Number of Flags Missed	Joint Times
Alina	1 minute 53.6 seconds	4	
Beatrice	1 minute 56 seconds	2	
Carole	2 minutes 9.5 seconds	0	
Davina	2 minutes 12 seconds	1	
Elisa	1 minute 59.9 seconds	3	
Fiona	2 minutes 11.1 seconds	2	

# Aim



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# Success Criteria

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