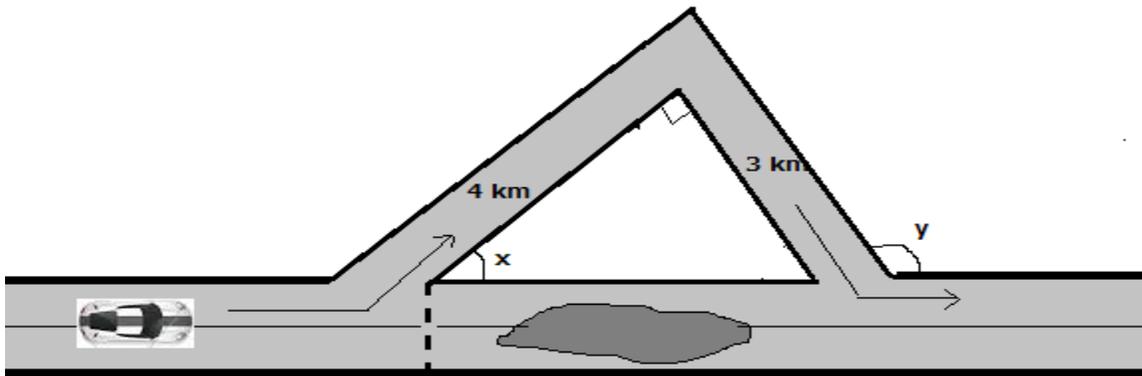


## Test item5: Triangles

Domain: Mathematical Literacy	Topic/Chapter: Triangles	Class(es ): VII Expected time:10 min <b>Total Credit:10</b>
Description of Item: Text and image	Learning Outcomes: To make students able to apply the properties of a triangle.	

Four friends Ravi, Mohan, Kunal & Nikhil are business partner based at RAEBARELI. They started their journey by car to attend a meeting in LUCKNOW. After covering some distance on the highway, they got diversion due to some repair work. They left the highway at an angle  $x$ , taken a straight pitch road of 4 km then turned through  $90^\circ$  and covered 3 km straight and join the highway at an angle  $y$  as shown in figure.



- (i) Choose the correct one: (a)  $x=90^\circ+y$  (b)  $y-x=90^\circ$  (c)  $x+y=90^\circ$  (d)  $x-y=180^\circ$
- (ii) Kunal says: we left the highway for 7 km .whether he is right?
- (iii) How much extra distance they had to cover due to diversion?
- (iv) If the uniform speed of car was 40 km/hr then by how much time they became late to reach the destination?
- (v) Ravi says: If  $x+y=180^\circ$  only when  $x=45^\circ$  .Is he correct?

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## Question intent

FRAMEWORK	CHARACTERISTICS
Competency Cluster	<i>Connections</i>
Overarching Idea	<i>Space and shape/change and relationship</i>
Context	<i>Occupational</i>
Item format	(i) Simple MCQ (ii) Short response items (iii) Short response items (iv) Closed constructed response item (v) open constructed response item
Cognitive Process	<i>Interpreting, Problem solving</i>
Proficiency Level	(i) 3 (ii) 3 (iii)2 (iv)4 (v) 4

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### Description of Answer keys and credit:

(i) Full Credit- for(b) No Credit- For other response
(ii) Full Credit- No No Credit- For other response
(iii) Full Credit- 2 km No Credit- For other response
(iv) Full Credit- 3 minutes No Credit- For other response
(v) Full Credit- yes No Credit- For other response

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**KVS Region: LUCKNOW**