Quadratic models in real life: reading parabolas worksheet – Grade 10

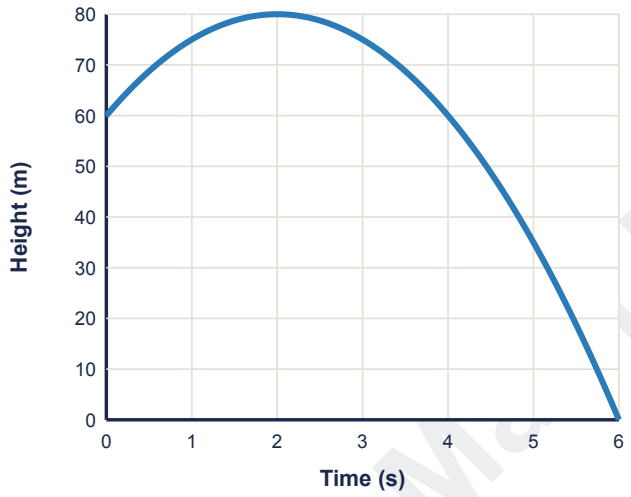
Grade 10 · Mixed level · 20 questions · **Version X3494**

Name: _____ Date: _____ Score: ___ / 20

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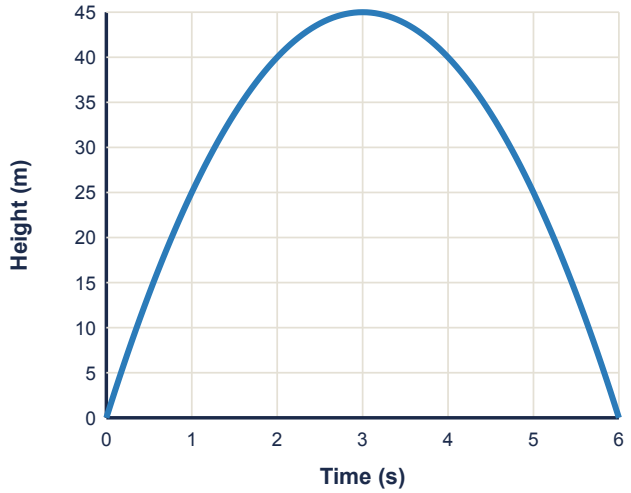
1. A ball is thrown upward from a balcony. The graph shows its height over time. After how many seconds does it reach its maximum height? (seconds)



Answer: _____ s

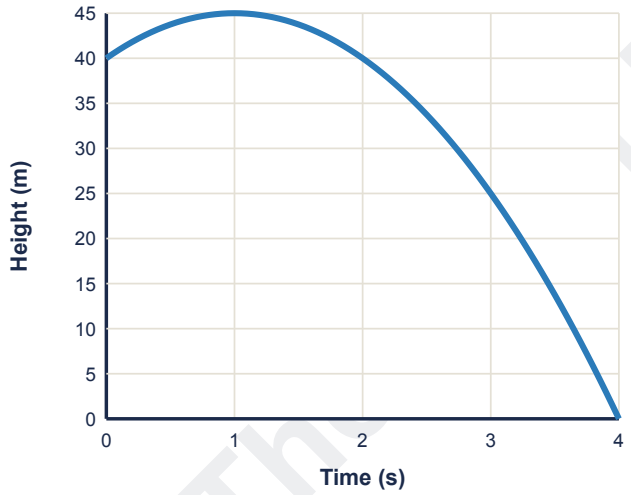
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2. A soccer ball is kicked up from the ground. The graph shows its height over time. What is its maximum height? (m)



Answer: _____ m

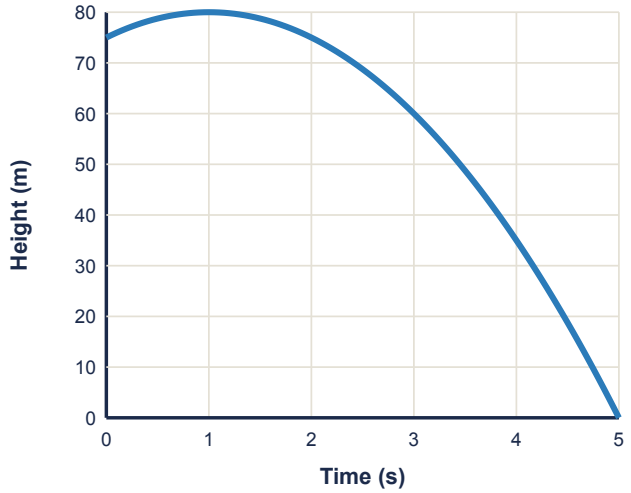
3. A ball is thrown upward from a cliff above a beach. The graph shows its height over time. After how many seconds does it reach its maximum height? (seconds)



Answer: _____ s

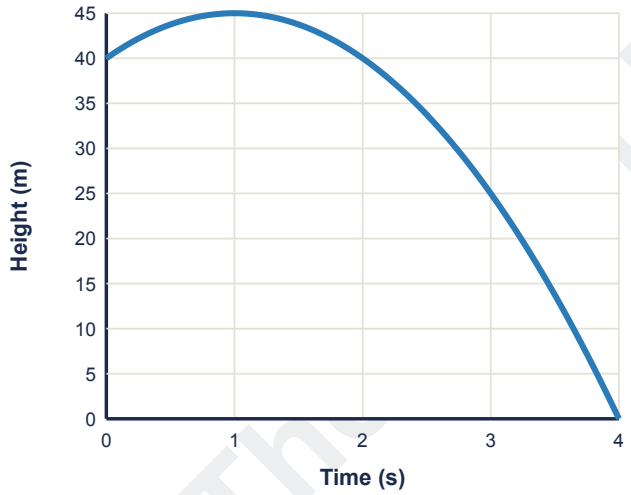
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4. A ball is thrown upward from the top of a building. The graph shows its height over time. After how many seconds does it hit the ground? (seconds)



Answer: _____ s

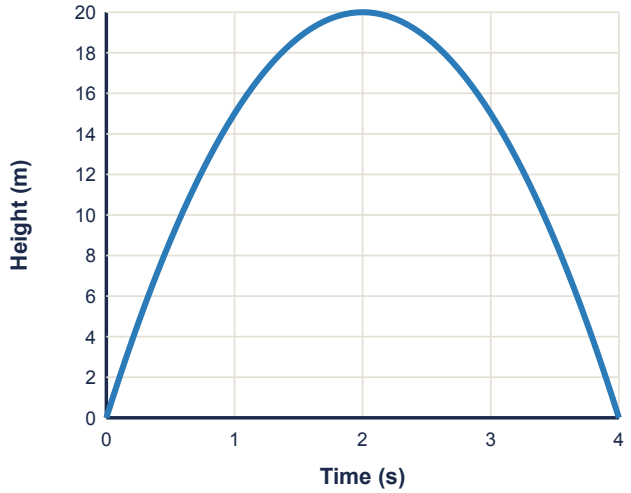
5. A ball is thrown upward from a bridge. The graph shows its height over time. After how many seconds does it reach its maximum height? (seconds)



Answer: _____ s

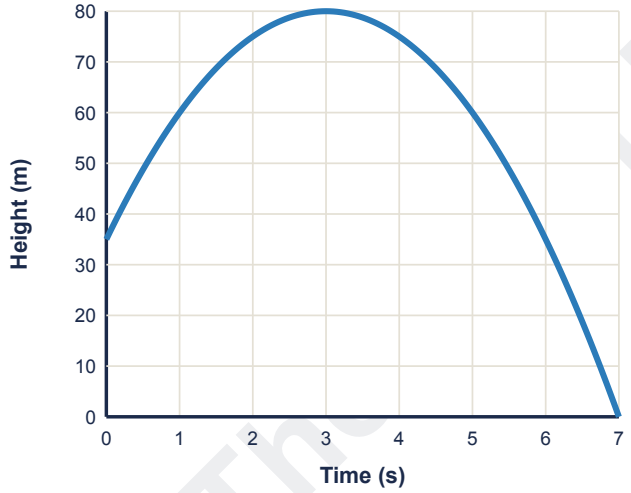
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6. A soccer ball is kicked up from the ground. The graph shows its height over time. What is its maximum height? (m)



Answer: _____ m

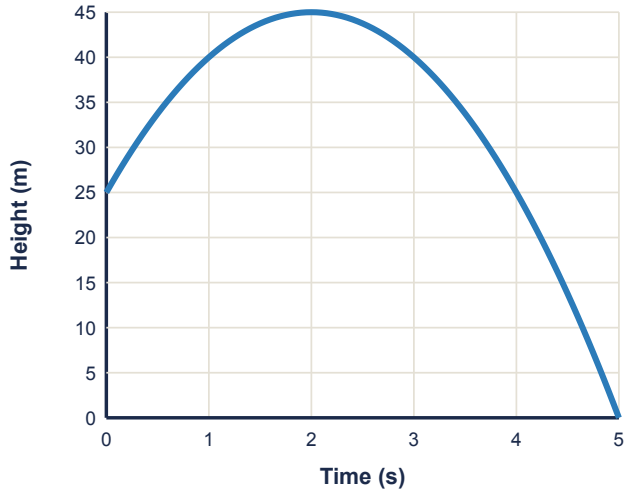
7. A ball is thrown upward from the top of a building. The graph shows its height over time. What is its maximum height? (m)



Answer: _____ m

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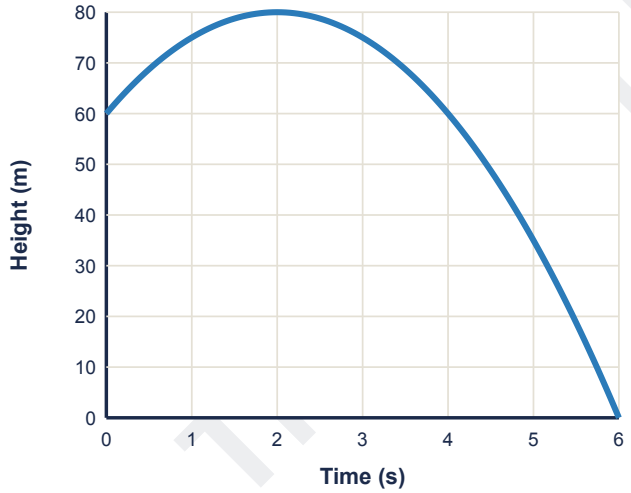
8. A ball is thrown upward from a balcony. The graph shows its height over time. Which equation models its height h after t seconds?



A. $h = -5(t+2)(t-6)$ **B.** $h = -5(t+5)(t-1)$ **C.** $h = 5(t+1)(t-5)$

D. $h = -5(t+1)(t-5)$

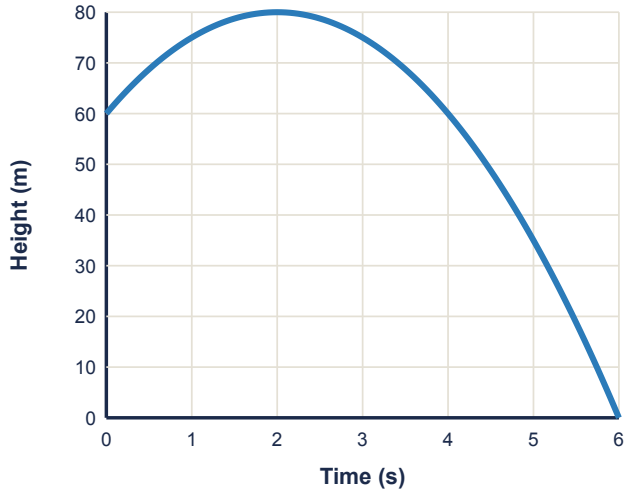
9. A ball is thrown upward from a cliff above a beach. The graph shows its height over time. For how many seconds is it higher than 60 m? (seconds)



Answer: _____ s

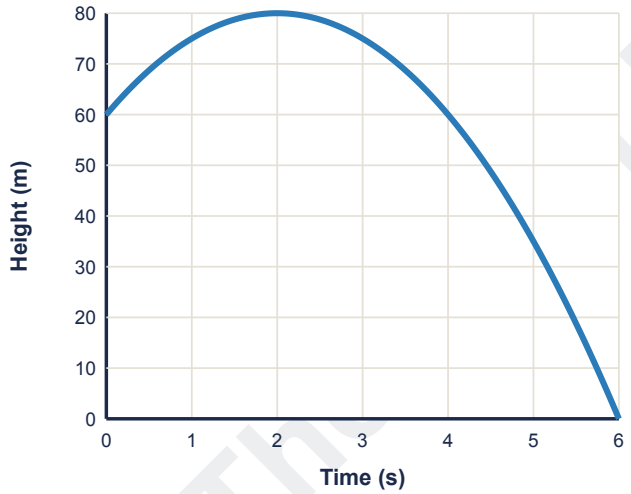
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10. A ball is thrown upward from a bridge. The graph shows its height over time. For how many seconds is it higher than 75 m? (seconds)



Answer: _____ s

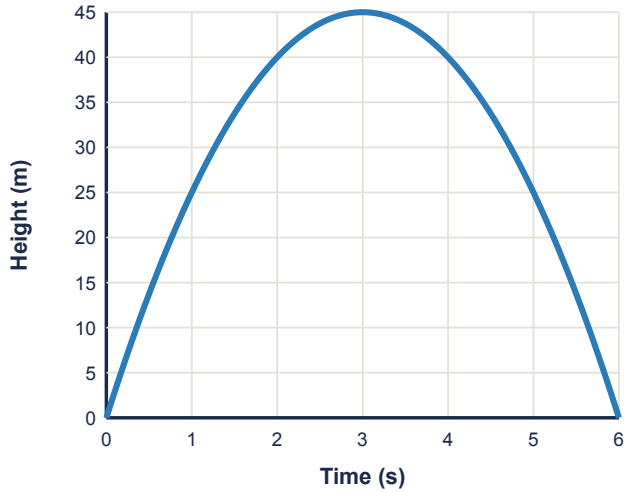
11. A ball is thrown upward from the top of a building. The graph shows its height over time. From what height was it thrown? (m)



Answer: _____ m

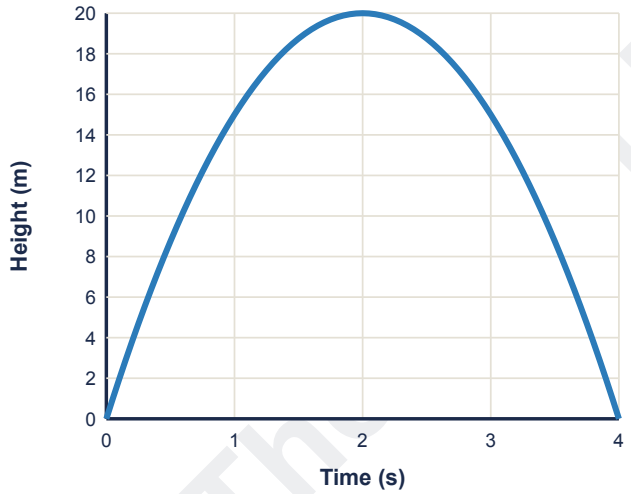
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12. A soccer ball is kicked up from the ground. The graph shows its height over time. For how many seconds is it higher than 25 m? (seconds)



Answer: _____ s

13. A soccer ball is kicked up from the ground. The graph shows its height over time. Which equation models its height h after t seconds?

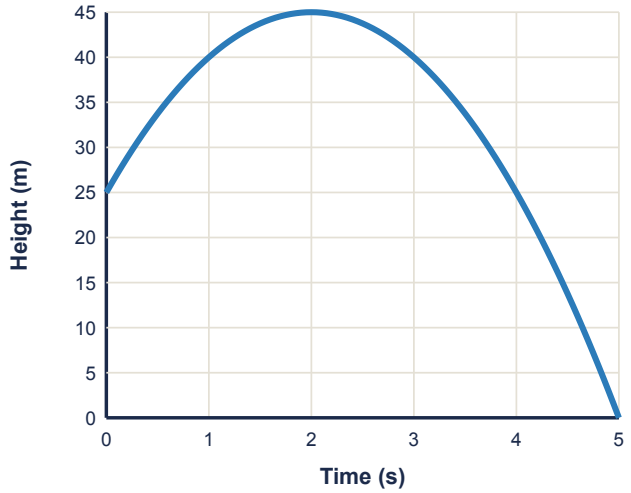


A. $h = 5t(t-4)$ **B.** $h = -5t(t-4)$ **C.** $h = -5(t+4)(t-1)$

D. $h = -5(t+1)(t-5)$

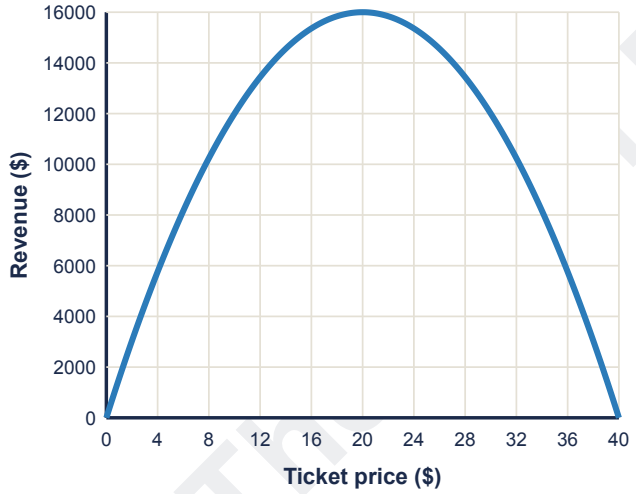
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14. A ball is thrown upward from a balcony. The graph shows its height over time. From what height was it thrown? (m)



Answer: _____ m

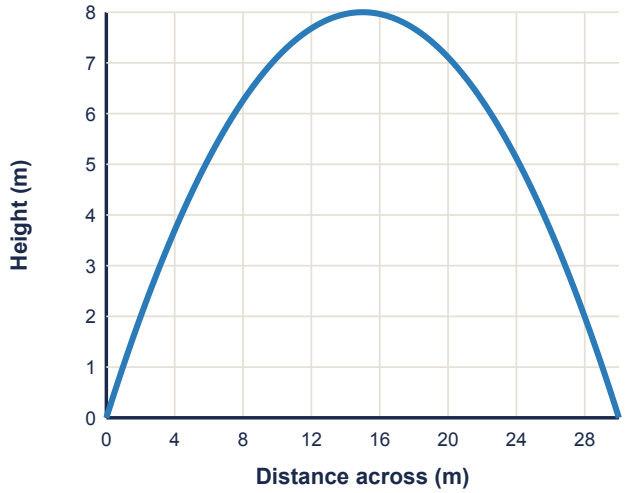
15. A theatre's revenue depends on its ticket price, as the graph shows. Above $0, at what ticket price would the revenue drop to 0? (dollars)



Answer: $_____

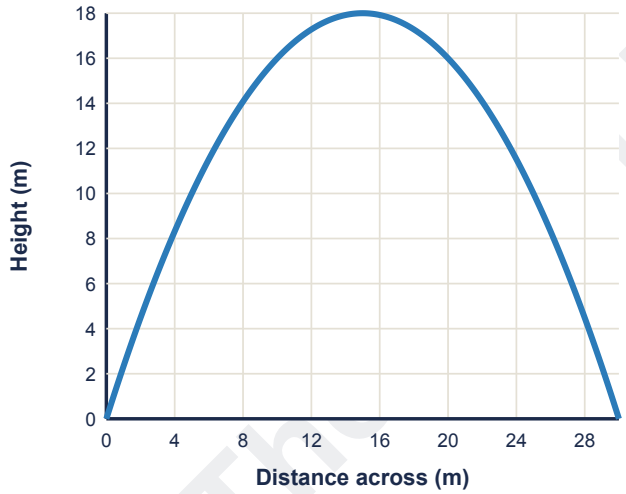
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16. The graph shows the shape of a bridge arch, a parabola. How wide is the arch at its base? (m)



Answer: _____ m

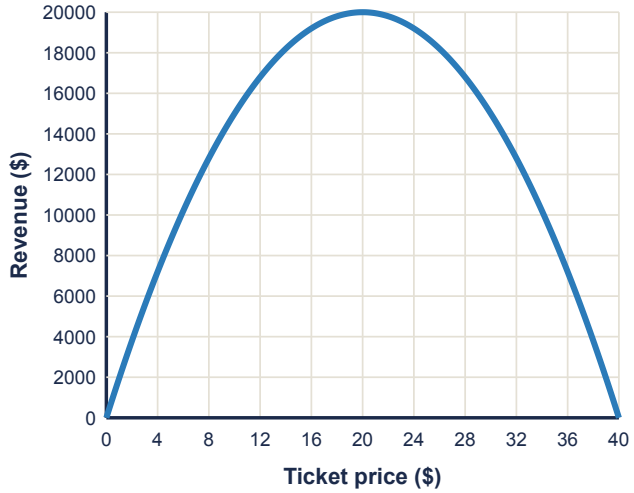
17. The graph shows the shape of a bridge arch, a parabola. How wide is the arch at its base? (m)



Answer: _____ m

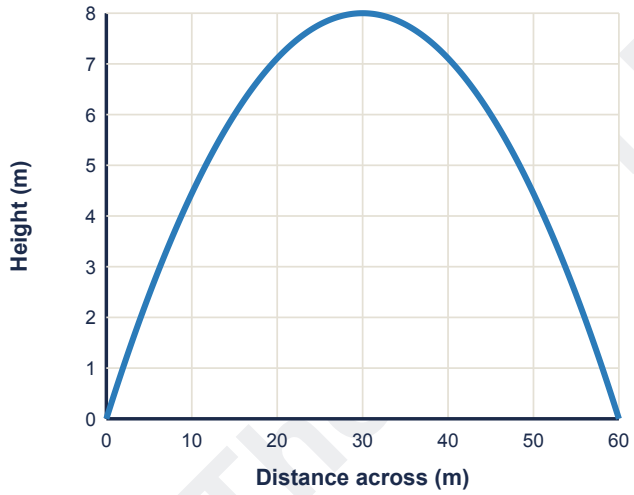
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18. A theatre's revenue depends on its ticket price, as the graph shows. What is the maximum revenue? (dollars)



Answer: $_____

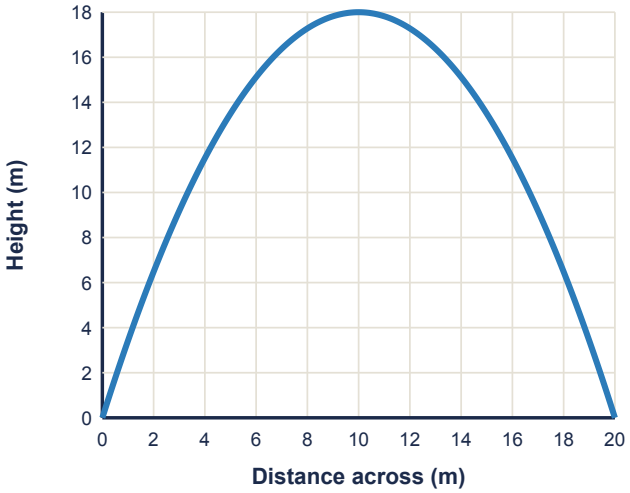
19. The graph shows the shape of a bridge arch, a parabola. How wide is the arch at its base? (m)



Answer: _____ m

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20. The graph shows the shape of a bridge arch, a parabola. How high is the arch 2 m from one end? (m, to the nearest tenth)



Answer: _____ m

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Answer key · Version X3494

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1. **2**
2. **45**
3. **1**
4. **5**
5. **1**
6. **20**
7. **80**
8. **D (**$h = -5(t+1)(t-5)$**)**
9. **4**
10. **2**
11. **60**
12. **4**
13. **B (**$h = -5t(t-4)$**)**
14. **25**
15. **40**
16. **30**
17. **30**
18. **20000**
19. **60**
20. **6.5**

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